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ABSTRACT

This resource book is intended for a one-semester model course for high school economics for eleventh- and twelfth-grade students. The seven units in the book are linked to content ordinarily found in microeconomic and macroeconomic courses. Each unit contains 5 to 11 lessons, an author's note to the teacher, an author's letter to the students, classroom instructional materials, and sample test items. Each self-contained lesson contains a summary of economic content, an economic reasoning summary, instructional objectives, procedures, and student materials. The seven units in the resource book are: (1) "Why Economics Is Important"; (2) "Supply and Demand"; (3) "Consumers and Producers"; (4) "The Role of Government in Economics"; (5) "Macroeconomics"; (6) "Macroeconomics: Forecasting Our Economic Future"; and (7) "International Economics Issues." The book concludes with a section on extending teaching activities. (EH)

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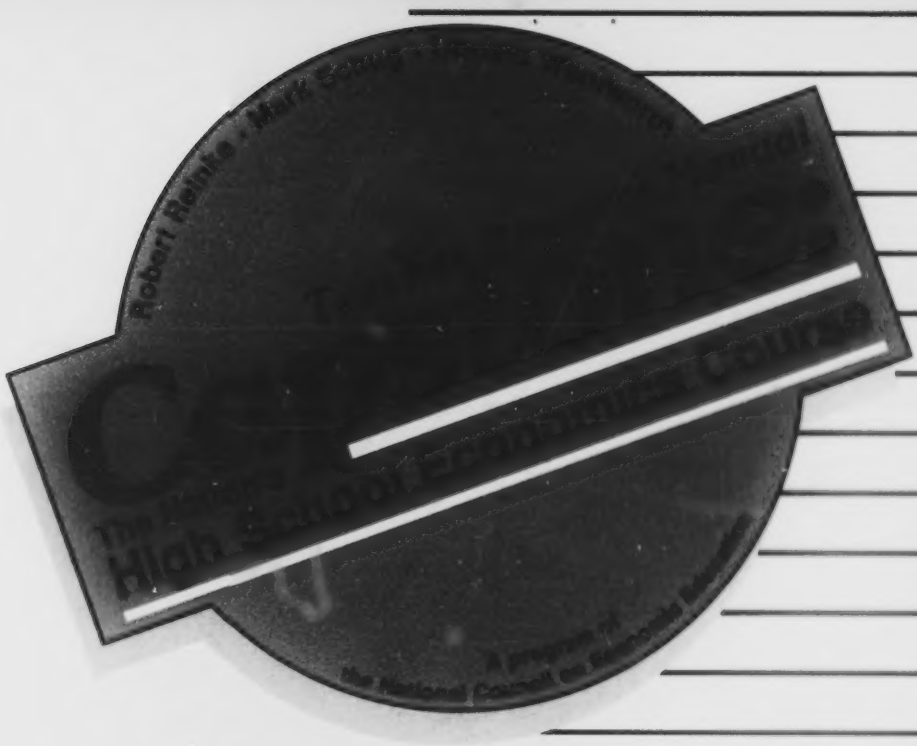
Robert Reinke · Mark Schug · Thomas Walstad
The
High School Economics Course
A program of
the National Council on Economic Education

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Capstone:

The Nation's High School Economics Course

Authors:
Robert W. Reinke, Mark C. Schug, Donald R. Wentworth

A program of the National Council on Economic Education

Teacher Resource Manual

Capstone:
The Nation's High School Economics Course

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CAPSTONE:
THE NATION'S HIGH SCHOOL ECONOMICS COURSE

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CAPSTONE: THE NATION'S HIGH SCHOOL ECONOMICS COURSE

The National Council on Economic Education is pleased to present *Capstone: The Nation's High School Economics Course*, a model course for high school economics. *Capstone* is a one-semester high school economics course intended for use with eleventh and twelfth grade students. The course will complement students' prior elementary and secondary economic education experiences by integrating prior learning with more sophisticated content that stresses the process of economic reasoning.

Capstone is intended to be the last formal economic education experience young people will receive in high school. Therefore, it stresses preparing students to function successfully as citizens of a national and world economy. However, its content and methodology also will prepare students for college-level economics courses.

Our main purpose is to improve student understanding of economics by raising their interest in economic issues and by teaching them to reason carefully about economic activity. Economic reasoning proceeds from basic assumptions about human behavior — made credible by historical evidence — and follows logical procedures to describe and explain human economic activity. *Capstone* presents personal, local, national, and international issues or events in order to stimulate students' curiosity and to provide them an opportunity to *learn* and *practice* economic reasoning.

To focus sharply on the reasoning goals, we pose certain issues or events as *mysteries*. For example:

> *Why are professional wrestlers who hurt people paid more than nurses who help people regain health?*
>
> *Why do teenagers, who need work in order to acquire job experience, have the highest unemployment rate of any group in the economy?*
>
> *Why does inflation exist, since many people are harmed by it and most people want it to end?*
>
> *Why do we buy automobiles made by people in other countries when U.S. citizens are out of work because consumers are not buying enough U.S.-made automobiles?*
>
> *Why does the federal government run a budget deficit when both the President and the Congress want to balance the budget?*
>
> *Why do citizens of Angola use six packs of beer as money in the Angolan economy?*

Then we propose ways to help students unravel the mysteries by learning and practicing careful economic reasoning as they analyze the national economy, particular markets, and the economic behavior of individuals. While focusing on economic choice-making, the students act as detectives, seeking and observing economic clues, then drawing logical conclusions from them. This process allows students to learn economic content in the context of today's world and to use it to understand a wide range of economic behavior — from individual behavior to that of the entire economy.

Capstone also approaches the economy from an international perspective. Today, the world economy influences individual economic choices as well as events in all national economies. Such global interrelationships are not well presented in traditional economics courses. *Capstone* includes an international perspective in all instructional units and in most individual lesson plans.

Pedagogy

The materials used in *Capstone* are designed to be pedagogically sound. They reflect recent educational research, stressing critical thinking, personal economic experiences, models for explicit teaching, and opportunities for cooperative learning. Moreover, the authors have seriously taken into account the characteristics of the learner, striving to anticipate the economic misunderstandings common among many adolescents and to correct student confusion by means of carefully planned learning activities.

Format

Capstone consists of seven units linked to content ordinarily found in microeconomic and macroeconomic courses. Each unit contains five to eleven lessons, an author's letter to the teacher, an author's letter to the students, classroom instructional materials, and sample test items. The total package entails 90 instructional periods. The actual number of days for any given teacher and class will depend on student characteristics, depth of instruction, and the number of *Capstone* activities the teacher chooses to use.

Each lesson contains a summary of economic content, an economic reasoning summary, instructional objectives, procedures, and student materials.

The materials are self-contained.

The Capstone Course and Other Instructional Materials

Capstone is designed for use with a high school economics textbook. Teachers should rely on their textbook for content that is not emphasized in *Capstone*. *Capstone* does not stress teaching definitions or vocabulary, for example. While the *Capstone* authors have taken care to define many concepts necessary for instruction, students may need to refer periodically to their textbooks for other definitions.

Capstone also is designed for use with high quality supplemental materials. The last section in *Capstone* describes how *Economics USA*, *Return to Mocha* and the *Stock Market Game* can be used in conjunction with lessons in *Capstone*. Inquiries for ordering these materials should be directed toward the National Council on Economic Education, 1140 Avenue of the Americas, New York, New York 10036, or call toll free: 1-800-338-1192.

Specific Purposes of the Course

Capstone should make a difference in the lives of students. After successfully completing the course, students should change their manner of thinking, their methods of seeking information, their view of themselves and others, and their ability to forecast future events. Such changes in student behavior should be observable in the classroom, at home, and in the community. As a final evaluation for the course, teachers may observe improvements in students' ability to:

1. Consider alternative courses of action.
2. Approach complex issues with confidence and careful analysis.
3. Make personal decisions thoughtfully after considering present and future consequences.
4. Accept individual responsibility.
5. Predict economic changes and adjust to them.
6. Show curiosity about economic issues and events.

Conclusions

Capstone's stress on economic reasoning provides a fresh focus for high school materials in economic education. The lessons require active student participation, encourage cooperative learning, and explicitly teach students how to reason economically. Most economic education curriculum materials teach *what* economists know (economic content and information). This course teaches students *how* economists acquire and use information so that students can understand *why* economic actions take place.

Unit 1
Why Economics Is Important

	Letter to the *Capstone* Teacher
Lesson 1	Solving Economic Mysteries: A Student Guide
Lesson 2	You Are the Economy
Lesson 3	To Choose or Not to Choose: That is Not the Question
Lesson 4	Individual Decision Making
Lesson 5	Social Decision Making
Lesson 6	Survival Activity
Lesson 7	D.C. or Bust! Factors of Production
Lesson 8	Rules Influence Economic Systems: Market, Command, and Traditional Economies
Lesson 9	The Circular Flow of Economic Activity
Lesson 10	Crime and Punishment: The Economic View vs. the Sociological View
Test	Sample Test Items

"Economics can be described as the study of the choices people make as they forecast the future."

Unit 1
Letter to the *Capstone* Teacher
Ours is to Reason Why

Dear *Capstone* Teacher:

Welcome to *Capstone: The Nation's High School Economics Course*. When you use *Capstone*, you join a community of high school teachers who are interested in helping young people learn how to use economic reasoning. In the opening quiz, "Do You Think Like an Economist?" students begin immediately to use economic reasoning. To get their attention, we made each statement false. Each statement represents a fundamental misconception in economic thinking. We recommend that you discuss these misconceptions as an introduction to economic reasoning.

Statement 1, "The best things in life are free," addfesses two important concepts. First, hardly anything is free. Because resources are scarce and wants are unlimited, we constantly have to make decisions on how to use these scarce resources. If we choose one alternative, we must give up another. The opportunity cost of choosing one alternative is giving up the next best alternative. This is why economists claim, "There is no such thing as a free lunch."

Statement 1 also should drive home the point that economics involves study of human behavior, not merely study of traditional economic topics such as taxes, investments, business, trade, monetary policy, and fiscal policy. For example, a student may claim that the best things in life are friendship, love, or family and that these things are free. Yet love, friendship, and devotion to family all involve opportunity costs.

Statement 2, "The largest cost of going to college is tuition, room and board," helps students further define the concept of opportunity cost. The cost of something is not measured only in direct outlays of money but in opportunities sacrificed. Therefore, the largest cost of going to college is the money a student could have earned by working full-time.

Statement 3, "The purpose of economic activity is to improve the well-being of some people at the expense of others," illustrates one of the most widely misunderstood economic concepts. When people trade with each other, they both anticipate that they will be better off because of the trade. This is because both people believe they can improve their circumstances by trading something of lesser value for something of greater value. Laws which limit trade hurt people and nations. In the words of the late President John Kennedy, "Trade or fade."

Statement 4, "Anything worth doing is worth doing well," illustrates the nature of making choices. Nobel laureate James Buchanan suggests that an economist can be distinguished from a non-economist by his or her reaction to Statement 4. Because resources are scarce and all choices involve costs, we can't do everything well. If Statement 4 were true, we would concentrate on just one task. In many cases, the additional cost involved in improving the quality of work exceeds the additional benefits. Do students ever not study for a test as hard as they could? Do teachers ever not prepare for class as well as they could? Economists believe that rational satisfaction-maximizing individuals do something until the extra or marginal benefit of the activity equals the extra or marginal cost of the activity. Marginal analysis will be stressed throughout the *Capstone* course.

Statement 5, "Life is priceless," is the most controversial statement here. The discussion of the statement is not meant to minimize the value of life. However, the world of trade-offs is so complex that we even use life as an opportunity cost to obtain other benefits. If this were not true, nations would not fight wars and people would not enter dangerous occupations. On a less dramatic level, the "benefits" of smoking, drinking, hang gliding, and fast driving confront one with the risk of an increased probability of death.

Our opening quiz provides a preview of how the *Capstone* course will emphasize the economic way of thinking. Students will find that economic analysis can help them to make sense out of puzzling patterns of behavior. Although we live in a world of trade-offs rather than solutions, economic principles will provide guidance in understanding and evaluating life's difficult choices.

Sincerely,

The *Capstone* Authors

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Unit 1
Lesson 1
Solving Economic Mysteries: A Student Guide

Introduction

Economics This lesson identifies the key ideas that guide economic analysis. It introduces students to the basic economic problems of scarce resources, unlimited wants, the requirement to choose among alternatives, and the consequence of cost. While nothing of value is free, voluntary trade helps provide more goods and services while reducing cost.

Reasoning Economic reasoning proceeds from basic assumptions about human activity. This lesson introduces students to the basic assumptions and uses them to model economic reasoning about an issue. It shows students how to use these assumptions to distinguish between useful and non-useful information in order to resolve economic mysteries and misunderstandings.

Concepts

Economizing
Cost
Incentives
Economic system
Trade
Forecast

Instructional Objectives

Students will

1. Identify six assumptions which guide economic analysis.
2. Use the *Handy Dandy Guide* (*HDG*) to guide their reasoning about economic issues.
3. Anticipate what will be studied in the *Capstone* economics course.

Lesson Description

This lesson uses a letter from the *Capstone* authors to explain to students what they will be studying and how they will approach economic reasoning. It also provides students with a model checklist to use as they look at new economic questions. The checklist provides suggestions about how to reason economically.

Time Required

One class period

Materials

A transparency of Visual 1-1-1.
One copy for each student: Handout 1-1-1, 1-1-2, and 1-1-3.

Procedure

1. Introduce students to this course by welcoming them to the world of economic mysteries. Explain that economic events take place and people often are puzzled by them. After taking this course, students will understand many common economic occurrences better than most other people.

2. To provide students with some examples of economic mysteries, display Visual 1-1-1 to the class. Encourage students to speculate about possible answers to the questions.

3. Don't attempt to present conclusive answers to the questions on Visual 1-1-1. Just ask students to think about these seeming paradoxes and to keep their eyes and ears open for others. These are questions of the sort they will be able to answer as they complete this course.

4. Distribute Handout 1-1-1, and have students take the quiz. (This quiz is intended as a motivational tool. It shouldn't "count" for a grade.) When everyone has completed the quiz, go over it and tell students that the correct answer to each question is *false*. (The Letter to *Capstone* Teachers explains each statement.)

5. Let the students try to explain, complain about, or even disdain the correct answers, but reassure them that the next few weeks in this class will help them understand why the answers differ from what they thought. Explain that this quiz will not affect their grades and that many thoughtful, bright people get these quiz answers wrong before they take a course like this one.

6. Distribute Handout 1-1-2. Ask the students to read it carefully. Explain that the letter explains six principles of economic reasoning that will help them to solve economic mysteries and will be used throughout the course. Ask the students to identify a principle while they read and to think of a new example of how the principle works in their lives.

7. After students have read the letter, conduct a short discussion to reinforce its main points. To solve mysteries, one must be able to differentiate between clues and non-clues, important and unimportant information. This letter asks them always to focus on *choices*, *costs*, *incentives*, *economic environment*, *trade*, and *consequences*.

8. Distribute Handout 1-1-3. Explain that the *HDG* summarizes the economic reasoning assumptions

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they learned from the letter. The activities which follow will use the *HDG* frequently. Students should keep it for future use.

Closure

Have the students work in pairs to use one *HDG* assumption in describing and explaining one everyday example of economic activity. If necessary, create a list of economic activities first and record the list on the chalkboard. Model the task of using an *HDG* assumption to describe and explain one of the examples.

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Visual 1-1-1

Economics Can Help You Learn to Unravel Some Mysteries That We All Know About But Can Not Always Explain Very Well

- Why are young people, the future of our country, the group with the highest level of unemployment?
- Why do professional wrestlers, people who cause injury, make more money than nurses, people who help heal injuries?
- Why do American citizens buy cars from foreign producers when auto workers in this country have fewer jobs because not enough people buy American cars?
- How can the unemployment rate increase while the number of employed people is increasing?

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Unit 1
Lesson 2
You Are the Economy

Introduction

Economics This lesson begins the study of economics by noting the roles that adolescents play in the economy. The initial activity is important for three reasons. First, it draws on what the students already know about economic life and places this information in a broader economic context. Second, while many adolescents may feel alienated from their local community, this lesson tries to demonstrate to young people that they already have a stake in the economic system. Finally, this lesson strives to motivate students to learn more about the economy by focusing on the fact that, through their choices, they are already active participants in the economy.

Reasoning People economize and gain wealth through voluntary trade. Teenagers often agree that this assumption is accurate with regard to adult behavior but they may be skeptical about its application to their own behavior. This lesson helps students examine their economic behavior and the consequences that result from choices. The activities will help students to see that the assumption about economizing through voluntary trade does explain human behavior.

Concepts

Consumer
Producer
Saver
Contributor
Economic interdependence
Voluntary exchange

Instructional Objectives

Students will

1. Complete and discuss a class survey about the participation of young people in the economy.

2. Recognize that the economy is an interdependent system made up of consumers, producers, savers, and contributors in which young people play an important part.

Lesson Description

This lesson invites students to complete a survey of their own economic activity as the basis for an introductory discussion of the meaning of economics.

Time Required

One class period

Materials

One copy for each student: Handout 1-2-1.
A transparency of Visual 1-2-1.

Procedure

1. Explain to the students that the purpose of this activity is to demonstrate why they might want to learn more about economics. Economics helps us to understand certain everyday puzzles such as why some people are paid more than others, why some people buy things only when they are "on sale" while others do not, why some businesses sell things below "cost" while others sell above "cost," and so on.

2. Ask: What are some of the economic activities that people typically do?

   (Work at various jobs; save money; spend money)

3. Suggest that it would be interesting to learn about the economic activity of the students in this class. Distribute Handout 1-2-1. Read the Introduction aloud. Briefly discuss the questions on the survey, noting the examples provided.

4. Ask the class to complete the survey. Circulate around the room to assist with individual questions.

5. Discuss the students' responses to the survey. Make a table on the chalkboard like the one below to summarize many of the ideas the students listed.

Businesses (Pizza Hut)	Products or Services You Use (Stereo)	Jobs (Paper Carrier)

Things You Are Saving For (College)	Organizations You Have Contributed to (Food for Families)

6. Ask the following questions to stress that young people depend on others in their community for many things they want, such as jobs. Similarly, many people in the community, including business people and charitable organizations, depend on young people. Ask the students to examine the information on the chalkboard to see if they can draw any conclusions.

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A. Why do you suppose young people spend money at these businesses?

(The students will give several reasons such as "you just want to buy something." Suggest that economists argue that people voluntarily exchange their money for goods or services. Both parties benefit from trade or else it would not happen.)

B. What might happen that would encourage young people to reduce their spending?

(Products are not good enough; products are no longer popular; prices increase.)

C. What do you think might happen if all the young people in our community stopped buying goods at the businesses on our list?

(Many businesses would stop producing or selling these products and would substitute other more popular products. Some workers would lose their jobs while businesses adjusted to the change. Young people who still desired them would no longer have products and services from these businesses conveniently available.)

D. Why do some young people work?

(Students usually work to gain income and to feel more independent. Stress the idea that students who work are voluntarily exchanging their work for income. Both the employee and employer benefit — otherwise they would not do it.)

E. What might cause young people to stop working?

(Wages might fall; employers might stop hiring if new technology made machinery less costly than employing workers to perform the same tasks.)

F. What do you think might happen if young people decided to stop working at several of the jobs on our list?

(Business people and families might have a hard time getting goods produced. Business leaders might decide to substitute other people such as senior citizens or they might invest in new technology to do work. Young people, on the other hand, would have less income to spend on things they want and more time for school work or time with friends.)

G. Why might young people stop saving money?

(Interest rates go down; inflation goes up; young people's income is reduced.)

H. What might happen if young people suddenly spent all their savings?

(Banks would have less money to lend to others in the community. People in the community would likely seek to substitute other forms of credit for bank loans. Young people would earn less interest. Young people would give up some of their long-term goals such as purchasing a car or a college education in order to satisfy more immediate goals.)

I. What might happen if young people stopped making contributions to community charities?

(Charitable organizations would have less money to help others. They would seek new sources of income. Young people would give up the satisfaction that comes from helping people.)

7. In order to test the results of the class survey further, display Visual 1-2-1. Have the students compare the conclusions they reached from the class survey with the information on Visual 1-2-1. Point out that the national figures suggest that young people are important players in the economy, especially in their role as consumers.

Closure

Conclude the lesson by explaining to the class that the purpose of this activity was to demonstrate four ideas. First, young people and their local communities depend on each other economically. Second, young people play important roles as consumers, producers, savers, and contributors. Third, young people make many voluntary economic decisions — such as spending money or looking for jobs. If young people did not think it was in their own interest to spend money or work, they would not do it. Finally, when conditions change, people quickly substitute one good or service for another.

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Visual 1-2-1
Youth in the Economy

Youth Spending and Saving

Adolescents spend $45.7 billion annually.
Adolescents save $9.3 billion annually.
22 percent of adolescents are saving for a long-range goal like attending college or buying a car.
Nearly 70 percent of adolescents claim that they influence the purchasing decisions of their families.
Nearly half the teenage girls in America and 26 percent of the teenage boys do shopping for their families.

Youth Part-Time Work

Over 30 percent of high school senior boys work, and nearly 25 percent of high school senior girls work more than 20 hours per week.
42 percent of boys and 32 percent of girls make more than $50 per week.

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Unit 1
Lesson 3
To Choose or Not to Choose: That is Not the Question
Reasoning Economically

Introduction

Economics This lesson emphasizes *scarcity* and *choice*. People engage in economizing behavior. That is, they (consciously or unconsciously) weigh the relative benefits and costs of each alternative and choose the one which provides them the greatest anticipated net benefits. In some situations it may appear that people "have no choice." But, in such situations, the alternatives usually involve such high costs that they are not given serious consideration. Still, an economizing choice is being made. This lesson helps students to identify alternatives, and anticipate their associated costs and benefits; it also requires them to make choices among given alternatives.

Reasoning This lesson helps establish the economic assumption that people choose. Students identify the alternatives that exist in "no choice" circumstances.

Concepts

Choices
Alternatives
Economizing behavior
Scarcity

Instructional Objectives

Students will

1. Identify alternatives in various choice situations.
2. Identify costs and benefits associated with various alternatives.
3. Make economizing choices from among competing alternatives.

Lesson Description

In this lesson, students make a decision after identifying the alternatives and their anticipated costs and benefits.

Time Required

One class period

Materials

One copy for each student: Handout 1-3-1.

Procedure

1. Explain to the students that the purpose of this lesson is to continue to develop their ability to solve economic problems. To do that, they need to learn some basic assumptions of economics. One assumption has to do with whether or not people have choices.

2. Point out to the class that people often think that they have no choice. Read this example: Mr. Hemingway always closes the locked door to his classroom immediately after the bell rings to mark the start of class. Mr. Hemingway requires that students bring their books to class every day. Ralph was delayed getting to Mr. Hemingway's room because he needed to stop at his locker to get the textbook for class. Ralph ran from his locker to Mr. Hemingway's room, but he arrived at the door too late. Ralph explained to Mr. Hemingway the next day that Mr. Hemingway had given him no choice but to cut school for the rest of the day. Ask: Did Ralph have alternatives in his situation? Encourage the students to suggest some alternatives Ralph had in addition to cutting school.

3. Lead a brief discussion in which the students describe situations where they may have felt they had no choice. For example, "I was forced to pay $2,000 for that used car — the salesperson really had me over a barrel." Or, "I have to put gas in the car so I can get to work tonight."

4. Distribute Handout 1-3-1 to the class. Ask the students to read the first paragraphs and example #1. Discuss example #1 with the class. Ask:

   A. What was Mary's problem?

   B. What alternatives did Mary face?

   C. What were the costs of each alternative?

   D. What were the benefits?

5. Encourage students to practice this way of thinking by completing the choice grids in Handout 1-3-1, listing the alternatives, costs, and benefits in each case.

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The following are some possible answers to examples #2 and #3 on Handout 1-3-1.

Example 2

ALTERNATIVE	COST	BENEFIT
Keep the price the same	Reduce profits	Keep prices the same and customers happy
Keep the price the same by discontinuing some of subs' special features (e.g., use cheaper tomatoes)	Customers might not buy as many subs — reduced sales	Keep prices and profits about the same
Discontinue selling subs and introduce less expensive lunches	Customers might not like the new product	Keep profits about the same
Raise prices of subs	Customers might buy less	Keep profits about the same

Example 3

Produce a different product	Difficult to transform the plant and equipment	Less competition from foreign sellers
Produce bumpers for a foreign producer	Difficult to get a contract	Increased sales
Close the plant and go bankrupt	Lose one's money; Workers out of work	No more worries about competing with foreign producers
Restrict imports	Few obvious costs to this owner and workers	Increased sales and jobs for workers

6. Discuss the student response to one or more of the cases in Handout 1-3-1. Stress the choices that may not be obvious.

Closure

Conclude the lesson by reviewing the choice principle with a new example. Ask the students what is wrong with the economic reasoning in the following statement:

"Health is our most precious gift; we have no choice but to preserve it."

The anticipated student responses should include the following:

All decisions require a cost/benefit assessment. In some circumstances the high cost of health maintenance exceeds the benefits for both the individual and society. For example, athletes risk injury to participate in sports, high cost medical care may not be given to very ill patients, and some people smoke cigarettes and take drugs even though such behavior threatens their health. People do make choices about matters of health.

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Unit 1
Lesson 4
Individual Decision Making

Introduction

Economics People continually make decisions. While some decisions are more important than others, the study of economics stresses the idea that no decision is cost-free. The best alternative not chosen is considered to be the real cost of a decision. The purpose of this lesson is to introduce the students to a rational model of decision making. The advantage of the model is that it shows students how to evaluate alternatives according to definite criteria. This procedure encourages students to weigh the costs and the benefits of each alternative and to stress the real cost of any decision.

Reasoning This lesson helps students forecast human behavior and explain why people disagree when faced with the same circumstances and information. To accomplish this task, students use two basic premises: People economize, and incentives influence behavior in predictable ways. Using a decision making grid, students use these premises to explain the choices made by different people.

Concepts

Decision making
Opportunity cost
Forecasting

Instructional Objectives

Students will

1. List and apply the steps in a rational decision making model.
2. Identify the opportunity cost in examples of personal decision making.

Lesson Description

This lesson introduces students to the use of decision making grids in making personal decisions.

Time Required

One class period

Materials

A transparency of Visual 1-4-1 and Visual 1-4-2.
One copy for each student: Handout 1-4-1, 1-4-2, and 1-4-3.

Procedure

1. Explain that the purpose of this lesson is to introduce the students to a way of forecasting economic behavior by using a decision making grid.
2. Ask: What are some of the decisions that young people make about how to use their money or their time? Encourage the students to suggest a variety of decisions such as whether to buy a new stereo, go to school, watch television, do homework, accept a part-time job. List these on the chalkboard.
3. Ask: How can you predict whether a person will make a particular decision? For example, what would we have to know to predict whether a student will accept a part-time job at McDonald's? Stress that predictions can be made after we know the alternatives, goals, and the relative importance or the "weight" of the goals. We can use economic forecasting to predict what people will do.
4. Explain that economics stresses making decisions in a careful way so that people know what they are giving up when they make a decision. The best alternative that you give up when you make a decision is called your *opportunity cost*; sometimes it is called the *real cost*.
5. Display Visual 1-4-1 on the overhead projector. Explain the steps in the decision making model.
6. Distribute Handout 1-4-1 and 1-4-2. Invite the students to read the case of *Cassandra Goes to College* in order to identify the problem, the alternatives, and her criteria.
7. Display Visual 1-4-2 on the overhead projector. In whole group discussion, invite the class to go through the steps in the decision making process by assisting you in filling out the grid. Ask:

   A. What is the problem?

   (Deciding which college to attend)

   B. What are the alternatives?

   (MU, BMSU, EU)

   C. What are the criteria?

   (Low cost, independence from parents, near friends, quality education)

   D. How should the criteria be ranked?

   (Ask the students to rank order the criteria by giving a score of 1 to their top criterion, 2 to their next most important, and so on. Ask for a sampling of individual rankings and write them on the grid)

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E. How should the alternatives be evaluated?

The following is a sample ranking for Cassandra's problem. For example, the school which best meets the criteria for low cost would be given a "1"; the next best a "2"; the least best a "3." In the case of a tie, the total should be split. When the grid is complete, you may show the total score of the ranking for each school if all the criteria are judged to be equal. Do this by adding the points for each alternative horizontally across the table. The alternative with the lowest score is best. However, the students may have given the goals different weights, so treating the goals as equally important can be misleading.

Rank of Criteria	Low Cost 2	Independence 3	Friends 4	Quality Program 1
Alternatives				
MU	1	1	2	3
BMSU	2	1.5	1	2
EU	3	1.5	3	1

8. Ask volunteers to predict what decision they think Cassandra will make. While they present their forecasts, encourage them to explain what goals are most important to them and what is given up in each decision. For example, a student might say that Cassandra should attend MU because keeping costs low should be her highest priority. The next best alternative she would be giving up would be BMSU.

9. Distribute Handout 1-4-3 and divide the class into small groups. Give the class additional practice with the decision making grid by asking them to work together to fill out the grid for Willy. Also explain that while they should try to agree on the ranking of the criteria, it is not necessary to reach a consensus.

10. Reconvene the class as a whole and discuss their evaluations of Willy's alternatives. The following is an example.

Rank of Criteria	Earn Money 1	Independence 3	School Grades 2
Frank's	2	2	2
Howard's	1	1	3
No change	3	3	1

11. Ask: What do you predict Willy will do?

Closure

Conclude the lesson by reviewing the steps of the decision making model. Ask the students to repeat the 6 steps. Display the steps one at a time by using Visual 1-4-1 with the overhead projector.

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Visual 1-4-1
Steps in Making Decisions

1. What is the problem?
   - What decision are you trying to make?

2. What are the alternatives?
   - What actions are you considering taking?

3. What are the criteria?
   - What goals do you hope to accomplish in making your decision?

4. Rank the criteria.
   - Which of your criteria are most important? Least important?
   - Rank order the criteria — labelling the most important #1, the next important #2, and so forth.

5. Evaluate the alternatives.
   - Rank order the alternatives according to how well they meet the criteria. If some alternatives fulfill the criteria equally, you might wish to show a tie score.
   - Or, give each alternative a plus (+) or a minus (-) according to how well it meets the criteria.

6. Make a decision.
   - Which alternatives best match your highest ranking goals?
   - What do you gain with each alternative?
   - What do you give up with each alternative?

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Visual 1-4-2
Decision Making Grid

1. What is the problem?
2. What are the alternatives?
3. What are the criteria?
4. Rank the criteria.
5. Evaluate the alternatives.
6. Make a decision.

Criteria

Rank of Criteria						
Alternative 1						
Alternative 2						
Alternative 3						
Alternative 4						

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Unit 1
Lesson 5
Social Decision Making

Introduction

Economics Students, like all Americans, hold the high public office of citizen. As citizens, they need to develop skills in making decisions that involve their communities. However, some decisions are more important than others. The purpose of this lesson is to help students apply their skills in making decisions about social concerns. The decision making model used in this lesson encourages students to weigh the costs and the benefits of each alternative and to stress the real cost of any decision.

Reasoning This lesson is designed to help students understand how people using the same criteria may make different decisions regarding social questions. Students forecast how others will respond. People respond to incentives, but one person's incentive may be another person's disincentive. That is, different people may assess costs and benefits differently. However, once incentives are known and their relative value assessed, actions can be predicted and understood.

Concepts

Decision making
Opportunity cost
Forecasting

Instructional Objectives

Students will

1. Identify and apply steps in a rational decision making model.
2. Recognize the opportunity cost in examples of social decision making.

Lesson Description

This lesson introduces students to the use of decision making grids in making social decisions.

Time Required

Two class periods

Materials

A transparency of Visual 1-5-1.
One copy for each student: Handout 1-5-1, 1-5-2 and 1-5-3.

Procedure

1. Explain that the purpose of this lesson is to have students learn to use a model of decision making as a method of forecasting economic behavior of groups of people.
2. Explain that, as citizens, we often make decisions that affect groups of people. For example, Congress and the state legislatures frequently deal with issues that affect many people. Some examples to write on the chalkboard are: setting highway speed limits, regulating hours when bars must be closed, setting minimum wages, changing social security benefits, raising or lowering taxes.
3. Ask: What are some other examples of decisions that individual citizens or elected officials make? The students might suggest a variety of decisions such as whom to vote for in a presidential election, whether a new anti-smoking law should be passed, or whether new schools should be built. List these on the chalkboard.
4. Ask: How can you predict whether individuals will support an action that affects many people? For example, what would we have to know to predict whether people will support reducing government grants for college tuition? Stress that predictions can be made after we know the alternatives, goals or criteria, and the "weight" of the goals or criteria.
5. Explain that economics stresses making decisions in a careful way so that people know what they are giving up when they make a decision. The alternative that you give up when you make a decision is called your *opportunity cost*; sometimes it is called the *real cost*.
6. Display Visual 1-5-1. Review the steps in the decision making model. They are the same as those introduced in Lesson 4 by Visual 1-4-1.
7. Distribute Handout 1-5-1. Invite the students to read *Going to School Year-Round?* to identify the problem, the alternatives, and the criteria.
8. Briefly, discuss the facts of the case.
   A. What is the problem at Lakewood High?

      (Increasing enrollment)

   B. What alternatives were being considered?

      (Changing to a year round school; hiring new teachers and building a new school; allowing class sizes to increase)

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9. Distribute Handout 1-5-2, the Decision Making Grid. Together, complete the grid. The following is a sample.

	Improving Learning	Student Freedom	Low Cost	Convenient for Parents
Year-Round	1.5	3	1	3
New teachers and school	1.5	1.5	3	1.5
No change	3	1.5	2	1.5

10. Once the decision grids are completed, ask the students to predict what they think the Lakewood School District will do and explain why. Stress the opportunity costs (that which is given up) as they state the alternative they favor.

11. Explain to the class that they will practice their decision making skills by working through another example. Distribute Handout 1-5-3. Ask the students to read Handout 1-5-3 to find out what the problem is and what the alternatives are.

12. Discuss the facts of the case in whole group discussion. Ask:

    A. What are DATs?

    B. Why do consumers want them?

    C. Why is the record industry afraid of them?

13. Distribute additional copies of Handout 1-5-2. Divide the class into small groups and ask them to complete the decision making grid.

14. Reconvene the class in whole group discussion. Invite the students to present their views about what they predict Congress will do to handle the DAT situation. They should refer to their decision making grids. Encourage them to emphasize what is given up in each case.

15. The following is a sample grid for the DAT case.

	Low Cost	Consumer Freedom	Protect Record Industry	Encourage New Musicians
No DAT imports	3	3	1	1
Anti-Copy Technology	2	2	2	2
Allow DAT imports	1	1	3	3

Closure

Conclude the lesson by reviewing the steps of the decision making model.

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Visual 1-5-1
Steps in Making Decisions

1. What is the problem?
   - What decision are you trying to make?

2. What are the alternatives?
   - Which actions are you considering taking?

3. What are the criteria?
   - What goals do you hope to accomplish in making your decision?

4. Rank the criteria.
   - Which of your criteria is most important? Least important?
   - Rank order the criteria, labelling the most important #1, the next important #2, and so forth.

5. Evaluate the alternatives.
   - Rank-order the alternatives according to how well they meet the criteria. If some alternatives fulfill the criteria equally, you might wish to show a tie score.
   - Or, give each alternative a plus (+) or a minus (-) according to how well it meets the criteria.

6. Make a decision
   - Which alternatives best match your highest ranking goals?
   - What do you gain with each alternative?
   - What do you give up with each alternative?

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Unit 1
Lesson 6
Survival Activity

Introduction

Economics This lesson uses the example of an Alaskan canoe trip as a device to introduce students to the fundamental questions facing every economy. Each society must figure out how to satisfy unlimited wants with limited resources. Answers to the fundamental questions facing every society (What should be produced? How should it be produced? How should it be distributed?) constitute a society's economic system.

Economic Reasoning Establishing an economic system involves establishing rules a society will use to govern economic activity. Rules influence the economic decisions that people make. Moreover, understanding the rules can help individuals to forecast the behavior of others and to predict the results of personal and group actions. Lesson 6 helps to establish the credibility of the assumption that economic systems influence individual choices and incentives. Students must examine how they choose differently as they are confronted with choices made by other people. The point about how individual choices are influenced by others is seen to hold, even in a small, poor economy like a group of canoeists.

Concepts

Choice
Scarcity
Production
Distribution

Instructional Objectives

Students will

1. Identify the basic economic problem by finding specific examples that occur in society during the survival activity.
2. State the three fundamental questions that every society must answer.
3. Recognize that people try to make the best choice from among their alternatives.

Lesson Description

Students participate in a small group survival activity to illustrate the basic economic decisions each society must address.

Time Required

Two class periods

Materials

One copy for each student: Handout 1-6-1.

Adapted from *Choices Around the World*. Washington Council on Economic Education, 1984.

Procedure

1. Explain to the class that each society establishes rules that govern economic behavior. The purpose of this lesson is to introduce the three basic economic questions that each society must answer. If the students understand these questions, it will help them understand any country's economy.

2. Read the following account of a hypothetical situation to the class. Picture yourself on vacation — up in the southeast Alaskan waterways canoeing with a group of friends. The month is June, the scenery is spectacular and the weather is fair. So far, it's been good times and smooth sailing, but today you've noticed more clouds than usual and a chill in the air. You and your friends climb into your canoes anyway, thinking that even if it does rain, you'll be able to dry off after you travel the day's course and make camp. The rain comes as you expected, but it doesn't stop as you had hoped. The clouds get darker, the rain begins to pour, and gusts of wind whip your canoe, making it almost impossible to paddle. You know you are in real trouble. Suddenly, a huge wave hits your canoe and, without warning, you capsize and find yourself thrashing about amidst the white caps. The next thing you know, you are frantically swimming toward the nearest shore. Gasping for breath and shivering from the icy Alaskan water, you drag yourself up onto the shore — barely able to believe that you made it and are still alive.

   Your problem: you and your friends are stranded on a small deserted island and don't know how long you will be there. The nearest settlement is more than 75 miles away.

   Your task: To survive.

3. Divide the class into groups (approximately 5 students per group).

4. Distribute Handout 1-6-1.

5. Briefly review the island's environment and the equipment that was salvaged after the storm.

6. Tell students their group has 5-10 minutes to figure out how they will survive. Instruct students to describe briefly their group's survival plan in the blank space at the bottom of their *Survival* sheets.

7. Call time and have someone from each group briefly report their survival plan to the entire class. Record the basic aspects of each plan on the chalkboard.

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8. Instruct students to take notes on the back of their *Survival* sheets during the questioning. Ask:

   A. What general type of behavior seems to be the same among groups of people trying to keep themselves alive? What were you involved in during the formulation of your survival plan? What choices were you making?

      (Creating a survival plan forced the members of each group, or "society," to make choices among alternative ways of using limited resources.)

   B. Explain to the class that all societies must decide (a) *what to produce*, (b)*how to produce*, and (c) *how to distribute* produced items. It will probably be easy for students to see that *every society produces*. However, students may need to be pushed further to focus on the questions of *how to produce* and *who receives*. To push students further, ask:

      1. What will you make?
      2. How will you make it?
      3. Who will make it?
      4. What natural resources will be used?
      5. What tools will be used?
      6. Will everyone get what is produced?
      7. Will those who produce get the goods?
      8. Will the leader decide who gets what?
      9. Will those who do not produce get anything?

      No society can survive without attending to all three fundamental economic questions. If evidence shows that students have not attended to all three survival questions, then instruct students to go back to their groups and figure out the rest of their survival plan.

   C. Upon what criteria did you base your survival decisions?

      Were your choices made randomly (by chance) or purposefully (with reasons)?

      What did you consider before making your final choices?

      What seems to be most helpful for explaining the choices you made?

      (Before making final decisions, students looked at a variety of alternatives and considered the *costs* and *benefits* of each choice. This process indicates that all choices were made purposefully.)

   D. Each group made different choices about survival, yet all the choices were purposeful. How can you tell if they were purposeful choices?

      (Alternatives were considered. Costs and benefits were weighed.)

   E. What do costs and benefits have to do with explaining choices that have been made?

      (Costs and benefits of alternatives influence final choices.)

Closure

Give students one of the following statements to explain; ask them to use economic reasoning principles in their explanations:

"People can make different choices and still make purposeful decisions."

"Different choices can result from purposeful choosing."

(Purposeful choosing comes from considering costs and benefits of alternatives; however, when individuals value the costs and benefits of alternatives differently, different choices result.)

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Unit 1
Lesson 7
D.C. or Bust!
Factors of Production

Introduction

Economics This lesson is an introduction to the production process. It uses concrete examples to show that the production of all economic goods and services requires a combination of the factors of production —i.e., *natural resources*, *labor resources*, and *capital resources*.

Reasoning This lesson introduces students to the idea that people decide what productive resources are. What is or is not a productive resource depends on people's imagination and their choices of how to use scarce resources.

Concepts

Factors of production:
Natural resources
Labor resources
Capital resources

Instructional Objectives

Students will

1. Identify resources that would be necessary to run a car wash.
2. Group and label their ideas as examples of natural resources, labor resources, and capital resources.
3. Explain that the production of any product or service requires a combination of the factors of production.
4. State that what is or is-not a productive resource depends on people's imagination and the willingness of consumers to purchase the good or service.

Lesson Description

Students work in small groups to identify examples of natural resources, labor resources and capital resources. Students continue to work in groups to identify a new good or service they wish to produce.

Time required

Two class periods

Materials

One copy for each student: Handout 1-7-1 and 1-7-2.

Procedure

1. Explain to the class that the purpose of this lesson is to introduce them to the productive process. To produce any good or service requires the use of productive resources. Productive resources include any resources, human or natural, that are converted for use in the production of a good or service.
2. Explain that productive resources are of three types. The production of any good or service requires some combination of these three different resources.
3. Distribute Handout 1-7-1. Read aloud the problem facing Mrs. Kean's class: How to fund their trip to Washington, D.C.
4. Ask the class to name all the things they think would be needed to run a car wash. List their ideas on the chalkboard.
5. Divide the class into groups. Explain to the class that their task is to select from the list on the chalkboard those words that seem to be related to one another. They should write these words in clusters on the bottom half of Handout 1-7-1 or on the back. Then they should label the words with some appropriate name. Give them 10 minutes to complete this.
6. When the lists are complete, reconvene the class as a whole. Ask them to name the resources they wrote down and to tell how they were labeled. Explain that no one classification is correct. However, in most cases, students will place the items into three or four categories that closely resemble the formal classifications of natural resources, labor resources and capital resources. If their list is not very similar, present the chart below as an example.

Natural Resources	Labor Resources (Work)	Capital Resources (Tools)
water	exteriors cleaners	vacuum cleaner
a place	interiors cleaners	hose
	sign makers	bucket
	cashier	cash box
		towels

7. Present the class with questions using additional examples of goods or services that use natural resources, labor resources, and capital resources. These might include: What does it take to produce a glass of beer? A college education? A Florida vacation? Invite the class to state a conclusion after considering these examples. Encourage students to recognize that all goods and services are produced by some combination of the factors of production.

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8. Explain that nearly anything is potentially a productive resource. The possibilities are limited only by people's imagination. In fact, one person's garbage is another person's treasure. Tell the students that they will work in small groups to imagine a good or service that people might want to buy; then they will list the productive resources that would be required to provide it.

9. Distribute Handout 1-7-2 and divide the class into small groups to work on it.

Closure

When the groups have completed their work, ask:

A. How were productive resources put to new uses in the examples?

(Sod was used as bricks; defective toilet paper became paper towels; a soap box, fan motor and rollers became a vacuum cleaner.)

B. Why was the conversion of sod into bricks successful? Of toilet paper to paper towels? A soap box and fan into a vacuum cleaner?

(People were willing to purchase the new product.)

C. What good or service did you identify?

(Responses will vary.)

D. What productive resources would be necessary to provide your good or service?

(Responses will vary.)

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Unit 1
Lesson 8
Rules Influence Economic Systems: Market, Command, and Traditional Economies

Introduction

Economics Human economic activity falls into three main patterns: market, tradition, and command economies. However, most economies are a mixture of all three. State allocation and private markets, for example, exist in all economies to some degree. In the real world, every economy is a mixed economy.

Reasoning Lesson 8 requires that students explain how a rule change can cause people to change their behavior. Students use the assumptions about choice and incentives, observe rule changes, and logically explain what causes the observed behavior in their class and in economies with different rules.

Concepts

Market economy
Command economy
Traditional economy
Mixed economy

Instructional Objectives

Students will

1. Identify incentives which influence their test taking behavior.
2. Explain how rule changes can affect the incentives people respond to.
3. Classify economic activity into three major categories: market, tradition, and command.
4. State how incentives influence economic choices in each type of economy.

Lesson Description

This lesson begins with a demonstration of how rules and incentives influence people's behavior. Next, the students classify examples of market, tradition, and command economic activity. They conclude that most economies are examples of mixed economies. WARNING: This activity may be dangerous to your health when students discover the unusual "grading" system. See procedure 5.

Time Required

Two class periods

Materials

A transparency of Visual 1-8-1, 1-8-2, 1-8-3, 1-8-4, and 1-8-5.
One copy for each student: Handout 1-8-1, 1-8-2, 1-8-3, and 1-8-4.

Procedure

1. Explain that this lesson will demonstrate how rules and changing incentives can influence people's economic behavior.
2. Display Visual 1-8-1, the *HDG* Review, to the class; review the key ideas.
3. Distribute Handout 1-8-1, the Quiz, along with Handout 1-8-2. Instruct the students to:
   - Do their very best on the quiz.
   - Make no marks on the quiz.
   - Mark all answers on the FIRST ANSWER SHEET only.
   - Finish in 5 minutes.
4. Call time. Ask the students to exchange their answer sheets with a neighbor for correcting. Read the correct answers and have students record the score (number correct) in the space provided.

   Quiz answers: 1.(A), 2.(D), 3.(C), 4.(A), 5.(B), 6.(C), 7.(B), 8(C), 9.(B), 10.(D).

   Reading the original questions along with the correct answers will help reinforce the economic concepts being taught (versus just reading the correct corresponding letters).
5. Display Visual 1-8-2. Inform students that grades on the quiz will be assigned as follows:

NUMBER CORRECT	GRADE
4 or more	F
3	D
2	C
1	B
0	A

   Tell correctors to place the grade on the Handout 1-8-2.
6. Survey class performance by asking correctors to provide data by raising their hands. Record the data for future student reference, using Visual 1-8-3.

Adapted from *Choices Around the World*. The Washington Council on Economic Education, 1984.

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Ask: How many of you corrected a FIRST ANSWER SHEET that has a grade A? B? C? D? F?

Have correctors return quizzes to owners after the tally.

7. Ask:

   A. How many of you usually try to earn as high a grade as possible? Why?

      (Most students see high grades as having "something in it for them" — e.g., personal satisfaction, getting a good grade, maintaining a high grade point average, or getting parental, teacher or peer approval.)

   B. Why did so many of you end up with low grades on the quiz?

      (Students made incorrect assumptions about the rules for grading.)

   C. What is an incentive?

      (Refer students to question 3 on the quiz if they need to review the definition of "incentive.")

   D. What incentive influenced the choices you made in selecting answers to the quiz questions?

      (The incentive for most students was wanting to earn a high grade.)

   E. If you had known before you took the quiz that the grading scale was inverted, how many quiz questions would you have tried to answer correctly? Why?

      (Many students would purposely have tried to answer questions incorrectly, since the lowest score would have earned the highest grade.)

8. Tell students that the grades from the quiz they just took will not count. Instead, students will be permitted to take the same quiz a second time in order to have a chance to improve their grade.

   Distribute the Handout 1-8-3 to each student. Display Visual 1-8-4 and discuss the new grading information.

NUMBER CORRECT	GRADE
10	A
9	B
8	C
7	D
6 or less	F

   NOTE: All students earning an "A" will be given a writing assignment which will be due at the end of the period. All other students can use the rest of the period for reading or working quietly on anything of their choice.

   Instruct students to:

   - Use the same quiz they just took (Handout 1-8-1).
   - Mark no marks on the quiz.
   - Mark all answers on Handout 1-8-3.
   - Finish in 5 minutes.

9. Call time and instruct students to exchange their SECOND ANSWER SHEETS (Handout 1-8-3) with a neighbor for correcting. Read the correct answers and have students record the score (number correct) in the space provided. Then tell correctors to mark the grade on the SECOND ANSWER SHEET according to the grading scale provided on Visual 1-8-4.

10. Survey class performance by asking correctors to provide the grades by raising hands. Record the data for future student reference, using Visual 1-8-3.

11. Ask:

   A. Why didn't everyone earn an "A," since all of you knew what the correct answers were before you took the quiz?

      (The incentives changed.)

   B. How many students tried to miss at least one question on the quiz? Why?

      (Students probably missed a question to avoid the extra assignment and to get free reading or study time.)

   C. What incentive influenced the choices you made about selecting answers to the quiz questions this time?

      (Most students probably wanted the highest grade possible without incurring any extra work.)

   D. Why did your incentive change?

      (Rules changed.)

12. Place the following diagram on the board:

   Rules ⇒ Incentives ⇒ Choices

   Ask: What is the relationship between choices, incentives, and rules?

   (Explain that rules influence incentives and that incentives influence choices.)

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13. Explain that there are different ways of classifying economic activity. Each class or set of economic activities represents a different system of rules for economic behavior. As was demonstrated earlier, rules influence people's incentives and choices. Knowing the classifications will help students to recognize differing forms of economic activity in our economy and in the economy of other countries.

14. Project Visual 1-8-5 and read the examples to the class. Point out that, in each case, people are making economic decisions, but the actions they take vary from one person to another. Ask the class what differences they see.

    (The Beijing Television Factory uses incentives to encourage voluntary cooperation; the Soviet planning commissions depend on government power; Massaud passes on his craft in a manner that respects village traditions.)

15. Project Visual 1-8-6. Explain that there are three ways of classifying economic activity—market, traditional, and command. Note that the United States, much of Western Europe and Canada are considered to have economies that resemble market economies; that some nations in the Middle East and Africa are thought to have traditional economies; that the economies of the former Soviet Union and Cuba are commonly thought to be examples of command systems.

16. Stress that there are no perfect examples of market, traditional, and command systems. Every economy is a mixed economy with some features of all three types of systems. For example, the U.S. has child labor laws. Russia is experimenting with forms of private ownership and markets.

17. Distribute Handout 1-8-4. Read over the directions with the class. Do the first three examples together. Answers are provided in procedure 19 below.

18. Divide the class into small groups. Ask the students to classify the remaining items according to whether they are examples of market, traditional or command economies. Ask them to add two or three new examples to each list.

19. Reconvene the class as a whole and lead a discussion of how students classified the examples. Ask individuals to explain their classifications. The correct answers are provided below:

Market	Tradition	Command
2	1	3
4	5	6
7	10	8
9		12
11		

20. Explain to the class that the examples of economic activity listed in Handout 1-8-2 show that most economies have some characteristics of market, tradition, and command within them. For this reason, most economies are considered to be mixed economies.

21. Ask the students to predict how economic behavior might be different under a market, tradition, or command system. What incentives are encouraged in each system? Use student comments to develop a table like on the chalkboard — e.g.:

Market	Encourages individuals to make their own choices
Tradition	Encourages individuals to repeat past actions
Command	Encourages individuals to follow state decisions

Closure

Conclude the lesson with a quick review discussion. Ask:

A. How do rules influence economic behavior? Provide an example.

B. What are the three types of economic systems? Give an example of each.

C. What is a mixed economy?

D. How do incentives differ in market, traditional, and command economic system?

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Visual 1-8-1
Handy Dandy Guide (HDG)
Review

1. *People economize.* People choose the alternative which seems best to them because it involves the least cost and the greatest benefit.

2. *All choices involve cost.* Cost is the second best choice people give up when they make their best choice.

3. *People respond to incentives.* Incentives are actions or rewards that encourage people to act. When incentives change, people's behavior changes in predictable ways.

4. *Economic systems influence individual choices and incentives.* How people cooperate is governed by written and unwritten rules. As rules change, incentives change and behavior changes.

5. *Voluntary trade creates wealth.* People can produce more in less time by concentrating on what they do best. The surplus goods or services they produce can be traded to obtain other valuable goods or services.

6. *The consequences of choices lie in the future.* The important costs and benefits in economic decision making are those which will appear in the future. Economics stresses making decisions about the future because it is only the future that we can influence. We cannot influence things that have happened in the past.

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Visual 1-8-2
Grades

NUMBER CORRECT	GRADE
4 or more	F
3	D
2	C
1	B
0	A

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Visual 1-8-3
Class Tally of Quiz Grades

Possible Grades	FIRST QUIZ number of students who earned	SECOND QUIZ number of students who earned
A		
B		
C		
D		
F		

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Visual 1-8-4
Grades Again

NUMBER CORRECT	GRADE
10	A
9	B
8	C
7	D
6 or less	F

NOTE: All students earning an "A" will be given a writing assignment which will be due at the end of the period.

All other students can use the rest of the period reading or working quietly on anything of their choice.

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Visual 1-8-5
Three Kinds of Economic Activity

1. The managers of the Beijing Television Factory now offer bonuses to workers to encourage them to produce more television sets for consumers.

2. In the former Soviet Union regional planning commissions persuaded the provincial commission of the need to order factories to produce more refrigerators.

3. Like his father before him, Massaud is the blacksmith in his West African village. For several hours each day, he teaches his craft to his son so that, when Massaud is old, his son will continue the work.

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Visual 1-8-6
Market, Tradition, Command Economic Activity

Market Economy	Traditional Economy	Command Economy
Individuals and businesses make the main economic decisions. The market prices that result from individual and business decisions act as signals to producers, telling them what buyers want.	Economic decisions generally repeat those made in earlier times or by previous generations. Continuity is valued in economic life.	Economic decisions are made largely by an authority such as a feudal lord or government agency. Planners decide what to produce.

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Unit 1
Lesson 9
The Circular Flow of Economic Activity

Introduction

Economics Economic relationships among households and businesses in a market economy are often said to create a circular flow of economic activity. At its simplist, owners of resources—families and individuals—supply their land, labor and capital to businesses in exchange for income in the form of wages, rents, interest and profits. Owners of resources in turn use their income to purchase finished goods and services supplied by businesses. Business firms then use the proceeds from sales to pay the resource owners for the services the firms receive by employing the resources. Together, these relationships form an interdependent economic system. The well-being of resource owners depends on the well-being of people in business firms; conversely, the well-being of people in business firms depends on the well-being of resource owners.

Reasoning The reason for the relationship between resource owners and business firms is that voluntary trade creates wealth. The circular flow of activity helps to establish the credibility of the assumption that voluntary trade creates wealth. It also demonstrates how the outcomes of trade are influenced by the economic system in which people participate.

Concepts

Circular flow of resources, goods, services, and money payments
Economic incentives:
- human resources
- natural resources
- capital resources

Productive resources:
- wages and salaries
- rents
- interest
- profits

Economic interdependence

Instructional Objectives

Students will

1. Analyze the economic relationships that exist between households and businesses in a market economy.

2. Name the three factors of production and what the economic returns that each factor earns are called.

3. Illustrate the economic relationship among households, businesses, and government by using a diagram of the circular flow or resources, goods, services, and money payments.

Lesson Description

This lesson involves students in a simulation which leads students to identify the circular flow of economic activity.

Time required

Two class periods

Materials

One copy for each student: Handout 1-9-1, 1-9-2, 1-9-3 and 1-9-4.

Enough Householder materials for half the students and enough Business firm materials for the other half. See procedure 3 for the total number of cards you will need. Run a few extra sheets, and cut all the sheets apart ahead of time.

An 8½" by 11" (or larger) sheet of paper on which you have written ECONO FACTORY.

Masking tape or straight pins which half the students can use to fasten Entrepreneur Badges on themselves.

Optional: two small prizes.

Procedure

1. Explain to the class that we function in the economy in a variety of ways. We make decisions as consumers when we buy products or services; we make decisions as producers when we supply the services of our labor, our savings, or our land to business firms; we make decisions as citizen-voters when our votes or other civic actions influence the economic decisions made collectively in the economy. Tell the students they will play a game called *Earning a Living* in order to improve their understanding of the interrelationships among households (consumers) and business (producers) in a market economy.

2. Distribute Handout 1-9-1. Have the students read the Overview; then answer their questions about the concepts involved. Have the students read the instructions for the *Earning a Living* game.

Adapted from *Teaching Strategies: High School Economics Courses*. National Council on Economic Education, 1985.

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3. Divide the class in half. Students in one group will represent business firms (entrepreneurs), and students in the other group will represent households. Give each student representing a business firm $1000 in the form of ten $100 bills and an Entrepreneur Badge to wear during the game. Give each student representing a household a total of 15 Household cards. It is not necessary or desirable to give a student five of each type of card. For example, you can give one student 15 Natural Resources cards and another student 10 Human Resources and five Capital Goods cards. However, the total number distributed to each student must be 15, and approximately equal numbers of Natural Resources, Human Resources, and Capital Goods cards must be distributed in the classroom as a whole.

4. Tape the ECONO FACTORY sign at the place in the classroom where the entrepreneurs are to exchange one set of their cards (Natural Resources, Human Resources, or Capital Goods) for one ECONO. ECONOS represent goods and services. You should staff this position during the game, or ask a student to do it.

5. Summarize the instructions for the *Earning a Living* game with the students, and answer any remaining questions about it. You may tell the students they have a total of 20 minutes to play the game, or you may wait until about one-quarter to one-third of the households have sold all their cards and then announce that the game will end in five minutes. It is important for the students to know in advance when the game will end so that they can plan for the orderly sale of their remaining productive resources and products. Be sure the students representing households know they must sell their cards for money and use the money to buy ECONOS. Be sure the students representing business firms know they must pay money for the resource cards and then sell ECONOS for money.

6. Play the game. It is possible that some households may try to circumvent the business process by bringing their resource cards directly to the ECONO FACTORY. Tell them they lack an Entrepreneur Badge and therefore are unable to produce ECONOS.

7. After the game is over, ask the students representing households to count the number of ECONOS they have accumulated, and ask the students representing business firms to count the number of dollars they have accumulated. Find out how many business firms went bankrupt, how many have less than $1,000 left, how many have exactly $1,000, and how many have more than $1,000. Make certain that business firms with less than $1,000 understand they incurred a loss. Find out which business firm made the most money and which household accumulated the most ECONOS. Award a small prize to each of these students and ask them to explain why they were so successful. You may also wish to ask a few households and business firms that weren't successful to tell why they were losers.

8. Distribute Handout 1-9-2. Have the students read Parts I and II and then complete Part II, using the information they gained from Handout 1-9-1 and from playing the game.

9. Discuss the students' answers regarding the flow chart. You may want one student to put a completed flow chart on the chalkboard and have other students evaluate it. Then distribute Handout 1-9-3, and explain the circular flow of resources, goods, services, and money it shows. Emphasize the interdependence of the economic system.

10. Now ask the students to read and complete Part III of Handout 1-9-2 and then have the class discuss the answers.

Closure

Distribute Handout 1-9-4 to illustrate the role of government in the circular flow of resources, goods, services, and money payments. Have the students compare their diagrams with the one shown. Discuss any discrepancies. (NOTE: Handout 1-9-4 also includes "transfer payments." Transfer payments have increased in recent years and consist mostly of payments by government for which the recipients do not currently perform productive services, although in some cases these payments are related to productive activity that was performed in the past. The most important transfer payments in the United States today are Social Security benefits, government employee retirement benefits, unemployment compensation, and public assistance such as aid to the elderly, aid to families with dependent children, veteran's benefits, and food stamps.)

Answers for Handout 1-9-2

Part II

A completed flow chart should show the following:

1. Money payments
2. Finished goods and services (ECONOS)
3. Productive services (human resources, natural resources, capital goods)
4. Money income payments (wages, rents, interest, profits)
5. Product market
6. Factor market

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You may wish to point out that from the perspective of the business firm, line 1 is sales revenue, line 2 is its output, line 3 represents inputs — the productive services it buys — and line 4 represents payments for productive resources (expenses and profit).

Part III

From Resource Owners (Families and Individuals) to Governments

1. Productive services
2. Money payments (mainly taxes for government services)

From Business Firms to Government

1. Goods and services supplied
2. Money payments (mainly taxes for government services)

From Government to Resource Owners (Families and Individuals)

1. Government services to resource owners
2. Money income payments and transfer payments

From Government to Business Firms

1. Government services to business
2. Money payments (for purchases and transfer payments)

Household Cards

Business Cards

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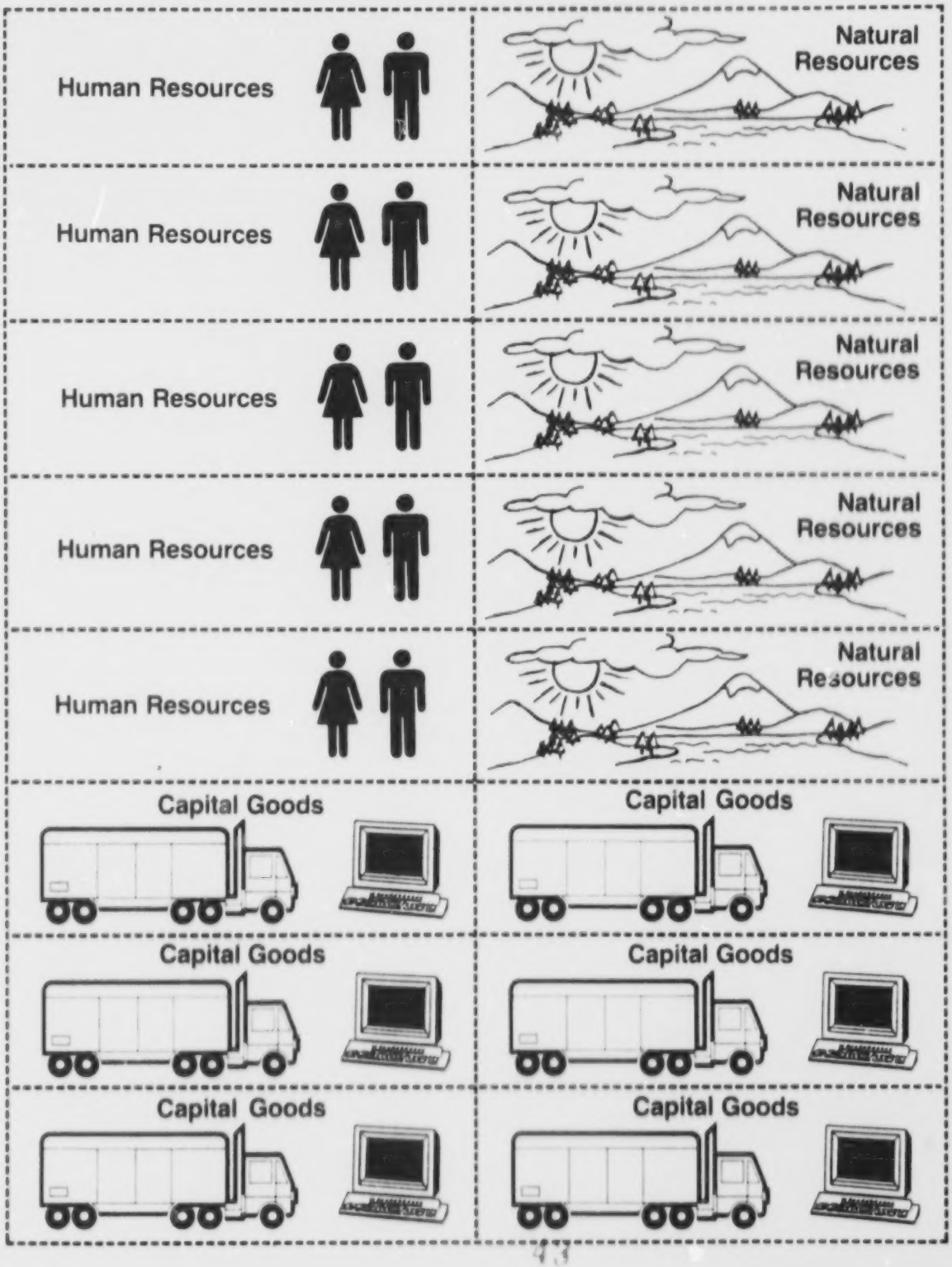
Materials for Householders



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Materials for Business Firms

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Lesson 10
Crime and Punishment: The Economic View vs. the Sociological View

Introduction

Economics This lesson provides students with an opportunity to apply economic concepts to an important social issue. The lesson should help students to think critically about crime and punishment.

Reasoning The lesson contrasts economic reasoning with non-economic reasoning. Students learn that the use of economic assumptions can affect our thinking about policy. In the words of John Maynard Keynes, "the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. . . . I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas" (Heilbroner, 1967).

Concepts

Economizing
Cost
Benefit
Cost-benefit analysis

Instructional Objectives

Students will

1. Describe the characteristics of criminals as seen by sociologists.
2. Explain why economists believe punishment deters crime.
3. Compare and contrast the ideas of sociologists and economists on crime prevention and control.
4. Apply hypotheses on crime to the development of public policy on crime prevention and control.

Lesson Description

After reading a handout, students contrast the economic and sociological views of crime. In class discussion, students see how the economic way of thinking contrasts with the non-economic way of thinking. They will also learn how difficult it is to prove a hypothesis on crime because of intervening variables.

Time Required

One class period

Materials

A transparency of Visual 1-10-1.
One copy for each student: Handout 1-10-1.

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Procedure

1. Explain to the class that the purpose of this lesson is to learn how economic reasoning skills may be used to formulate policy aimed at reducing the crime rate.

2. Project Visual 1-10-1. What evidence is shown here that crime is a continuing problem in the United States?

   (Many people are arrested each year; the number of reported crimes has increased since 1978.)

3. Distribute Handout 1-10-1 and answer the questions at the end to see how economists and sociologists look at crime. When students have finished reading, ask:

   A. How do sociologists tend to explain the causes of crime?

      (Sociologists tend to emphasize such factors as poverty, discrimination, and poor schools.)

   B. How do economists tend to explain the causes of crime?

      (Economists stress that crimes are the result of rational choices.)

4. Discuss the questions on crime and punishment on Handout 1-10-1. The following are some responses:

   1a You would try to increase the cost of committing crime. You could increase the chances of catching criminals by hiring more police and more judges. You might give mandatory sentences and decrease the chances of parole. Sentences could be more severe. You could also increase the benefits of not committing crimes by reducing unemployment and increasing the personal and social benefits of not committing crimes.

   1b If you believed in the sociological view, you would not stress punishment as a deterrent to crime because you would think that criminal actions are due more to social conditions than to rational calculations. You would stress rehabilitation in prisons and would try to improve the social and economic conditions of poor people.

   2 It is very difficult to prove cause and effect. Just because two factors are related, doesn't mean that one is the cause of the other. Using multiple regression analysis, economists have

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tried to determine whether raising the price of crime deters it. The first research was undertaken under the direction of Gary Becker at the University of Chicago. Almost all the research done by economists and much of the recent research done by sociologists confirm that punishment deters crime. According to Tullock and McKenzie, "All of these studies of which we are aware have indicated that punishment does deter crime" (Tullock & McKenzie, 1983).

Closure

Ask question 3 from Handout 1-10-1. Encourage the students to apply the assumptions of economic reasoning in their discussion. Push them to arrive at an answer.

Sources

Heilbroner, R.L. *The Worldly Philosophers*. New York: Simon and Schuster, 1967.

Tullock, G. & McKenzie, R.B. *The New World of Economics*. Homewood, IL: Richard D. Irwin, 1985.

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Visual 1-10-1
Recent Crime Statistics

In 1986, 1,709,919 arrests were made of people accused of committing violent crimes. This is an increase of over 100,000 from 1985.

In 1986, 536,609 people under age 15 were arrested. In 1987, this number increased by over 20,000.

Index of US Crime

Offense	Number 1987	Percent Change from 1978
Murder	20,100	2.8
Forcible Rape	91,100	34.8
Robbery	517,700	21.3
Aggravated Assault	855,090	49.6
Burglary	3,236,200	3.4

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Sample Test Items

Unit 1 Why Economics is Important

1. Larry, Curly and Mo have each decided that consumers are at the mercy of producers. What idea of economic reasoning does this violate?

   *A. People make choices.

   B. The best things in life are free.

   C. Rules set the economic environment.

   D. Consequences of choice lie in the future.

2. Young people make many contributions to the economy. However, they make their biggest economic contribution in the role of

   *A. Consumer.

   B. Producer.

   C. Saver.

   D. Contributor.

3. Clara decided to go out for the soccer team even thought she had a serious knee injury last season. Her parents and friends have decided she is crazy. Her friend Linda told her that Clara obviously did not care one bit about her health. How would you explain Clara's action?

   A. Clara has no respect for her health.

   B. Clara's parents and friends must not care for her.

   C. Clara is prone to irrational decisions.

   *D. Clara thought that the costs were outweighed by the benefits.

4. David was unsure about accepting a part-time job. He identified his choices (to work or not to work), ranked them in order, and made a decision. What step did he miss?

   A. Identify the problem.

   B. State alternatives.

   *C. Specify criteria.

   D. Make a decision.

5. Which of the following is NOT an economic question each society faces?

   A. What to produce?

   *B. Who will rule?

   C. How to produce?

   D. How to distribute goods and services?

6. A new factory to produce super-computers is an example of a(n)

   A. Natural resource.

   B. Labor resource.

   *C. Capital resource.

   D. Innovative resource.

7. One July, Stan and Olly decided to go into the Christmas tree business. They went from door to door trying to sell freshly cut Christmas trees. As you might expect, they didn't sell many and went out of business by August. What kind of economic activity is this?

   *A. Market.

   B. Tradition.

   C. Command.

   D. Mixed.

8. The main "players" in the circular flow of economic activity are

   *A. Resource owners and business firms.

   B. Resource market and labor market.

   C. Federal, state, and local government.

   D. New York Stock Exchange and the Dow Industrials.

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Sample Essay Questions: Conversations About Economics

The following are essay questions designed for Unit 1. Students should be asked to read the items and evaluate the arguments of each speaker. In evaluating the arguments, they should ask and answer the following questions:

- Is the speaker using economic or non-economic reasoning? How?

- Do you agree or disagree with the argument?

I. The Economics of Personal Choices

Ron Scodro I think teachers expect too much of their students. Like I got an F today because I didn't complete an assignment. How could I do it when I had a soccer game after school yesterday? I can't study and play soccer at the same time.

Amy Park I agree. I have to work 20 hours a week to get money for college. Teachers should understand that not everybody has parents who can afford to send them to college.

Jay Rock Yeah, but I gave up my job to work on my grades, and it's paying off. My grade point average has gone up, and my counselor says I should be able to get into a decent university. However, she says it'll be tough to get a scholarship. Maybe I can borrow the money for tuition, room, and board.

II. The Economics of Cheating

Carol Roberts I don't believe how much cheating goes on at this school. I know it's wrong to cheat, but my class rank is dropping fast.

Nate Wilson I agree that there's too much cheating. I think it's because teachers don't trust us. If students were treated responsibly, they would act responsibly.

George Dirmeikis I'm not so sure about that. My English teacher gave us a lecture on how dishonesty hurts everyone. She said she'd trust us to do the right thing. Still, I noticed several kids who were using cheat sheets.

Mark Rosenstein You wouldn't believe my Chemistry teacher. He walks around the room during a test, and his eyes seem to have x-ray vision. If he catches you cheating, you not only flunk the test but the entire semester. I never see anybody cheating.

III. The Economics of Saving Whales

Sue Yang Did you see the story on TV about the whales trapped in the ice off Alaska? It's really sad.

Mike Gentry Yeah, it's sad. But it's heart-warming to know that so many people are working to save them. Even countries are working together to save them.

Diane DeBerry Of course, we should be concerned about saving whales. But just think how many resources we're using to try to save three gray whales. What about the other 20,000 gray whales? Some of the governments that are helping now actually kill whales. And what's being done to stop the pollution of the oceans? Next week everyone will forget about the whales. It'll be back to business as usual.

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Unit 1
Answers For Teachers and Discussion Points on Sample Essay Questions

For each unit, we provide some conversations for students to evaluate using economic reasoning. A good way to start this evaluation is to use the Handy Dandy Guide Checklist. The purpose of these conversations is to give students the opportunity to emphasize conceptual understanding and economic reasoning.

I. The Economics of Personal Choice

This conversation tests understanding of the concepts developed in Lessons 3 and 4.

Ron Scodro and Amy Park show no understanding of opportunity costs. There are no cost-free decisions. They made their choices, and those choices had consequences. Perhaps they could give up leisure to both work and study or participate in extracurricular activities and study.

Jay Rock correctly views the world as a series of trade-offs. He knows that people must balance marginal benefits and costs in making decisions. He is reasoning economically.

II. The Economics of Cheating

This conversation illustrates how raising the cost of cheating will lower its incidence. Be sure to emphasize that for a majority of people, the opportunity cost of cheating is that it goes against their personal values. However, for students with weak values, the cost of cheating must be raised to discourage them from doing it. By raising the cost of cheating, its incidence should decrease as each student evaluates its costs and benefits. Only Mark Rosenstein's example of Chemistry class describes a situation where the cost of cheating has been raised. In discussing cheating, you might relate the following experiment cited by Tullock and McKenzie:

"Cheating is a continual problem in all educational institutions. Exactly how much cheating is likely to go on across a university campus is unclear at this point, but we do have several very interesting studies. Charles Tittle and Alan Rowe, both sociologists, designed a study to determine the influence that moral appeal and threat of sanction had on the amount of cheating that went on in their classes. To do this, they gave weekly quizzes to their students; the instructors took the quizzes, graded them without marking the papers, and then, at the next class meeting, returned them to the students for them to grade. Without any appeal being made to the students that they were on their honor to grade them correctly, the students in one test group took 31 percent of all opportunities to cheat; the other test group took 41 percent of all opportunities. Next the instructors made an appeal to the students' sense of morality in grading the papers, and the instructors concluded that 'emphasizing the moral principle involved in grading the quizzes was also ineffectual. A moral appeal had no effect whatsoever in reducing the incidence of cheating.' In fact, in one of the test groups, the amount of cheating went up substantially after the appeal was made. Finally the instructors threatened to spot-check the quizzes for cheating, and the amount of cheating fell sharply from the 41 percent range to 13 percent in one class and from 43 percent to 32 percent in the other. They also concluded from the study that the instructor who had a reputation of being 'lovable and understanding' had the greater amount of cheating in his class, and they found that 'Those who were most in need of points were willing to take greater risks (that is, cheated more). This is consistent with the theory that the greater the utility of an act, the greater the potential punishment required to deter it. And perhaps it shows the futility of a moral appeal in a social context where all individuals are not successful.' " (Tullock & McKenzie, 1985)

III. The Economics of Saving Whales

This conversation is based on an actual incident that occurred in October 1988. The point of the conversation is not to criticize the efforts to save the three trapped gray whales. Instead, the story is meant to show that all choices involve costs and that there are no cost-free decisions. A course of action cannot be defended solely on the basis of its benefits. It can be defended only if the relative costs and benefits of each alternative are considered. During the time people were attempting to rescue the whales, even ardent environmentalists claimed that the resources used to try to rescue the whales might have been better spent to improve other whales' chances of survival. In an article unrelated to whales, economist Thomas Sowell stated, "Making hard choices among available alternatives means accepting tradeoffs that still leave much evil in the world. But crusades in the wonderful world of solutions turn many unhappy situations into utter catastrophes." (Sowell, T.)

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Sources

Sowell, T. "The Wonderful World of Solutions." *Chicago Tribune* (date unknown).

Tullock, G., & Mckenzie, R.B. *The New World of Economics.* Homewood, IL: Richard D. Irwin, 1985.

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Unit 2
Supply and Demand

	Letter to the *Capstone* Teacher
Lesson 1	Is What I Like, What I Buy? Maybe
Lesson 2	Markets Involve People: A Market in Wheat
Lesson 3	A Picture is Worth a Thousand Words: Demand
Lesson 4	A Picture is Worth a Thousand Words: Supply
Lesson 5	How Do Price Changes Influence My Behavior?
Lesson 6	Marginal Analysis
Lesson 7	The Market Never Stands Still
Lesson 8	When There Are Floors and Ceilings
Lesson 9	Become a "Profit Making Prophet" by Using the Market
Lesson 10	Rationing Kidney Transplants: An Ethical Problem
Test	Sample Test Items

"It ain't ignorance that causes so much trouble;
it's all the things we know that ain't so!"

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Unit 2
Letter to the *Capstone* Teacher

Dear *Capstone* Teacher:

"It's easy to train an economist," said one critic of economics. "Just buy a parrot and teach it to say supply and demand."

In this unit, students will learn that economics isn't quite that simple. Although most students of economics learn that the equilibrium price and quantity exchanged of a good occur where the supply and demand curves intersect, many of them never understand why this happens. Economic reasoning requires understanding the human behavior that influences the supply and demand curves.

This unit begins with a quiz to stimulate discussion about supply and demand. Statement 1 in the quiz, "Sometimes consumers don't buy the things they like the best," is true. The key to understanding the behavior behind a demand curve is that there are substitutes everywhere. A demand curve illustrates that the quantity of a good or service purchased relates to the sacrifice that must be made to obtain it. The law of demand asserts that there is an inverse relationship between the price of a good and the amount of the good that people wish to purchase. A consumer may prefer one good or service to another if there were no cost. However, because most goods are not free, consumers weigh the benefits against the costs and make choices which maximize their satisfaction.

Statement 2, "There are no substitutes for necessities such as food, clothing, and housing," is false. The answer to this statement illustrates that something deemed a "necessity" becomes a want when costs are considered. For example, people may claim there is no substitute for water. However, substitutes for water include brown lawns, dirty cars, moving to another area of the country, and deodorant. Is gasoline a necessity? Substitutes include smaller cars, more fuel efficient engines, living closer to work, car pools, and public transportation. The beauty of the market system is that relative prices encourage consumers to make these substitutions more efficiently than a government bureaucrat could. Consumers make substitutions in a way that maximizes their satisfaction.

Statement 3, "The more useful the product is, the higher its price will be," is false. For example, most people feel water is more useful than diamonds, but diamonds are much more expensive. This is because price is determined by supply and demand. Water is more plentiful than diamonds. When people claim a free market price is irrational, they are tying to impose their values on others. A free market price reflects the behavior of individuals. And it reflects what they do —not what they say they do.

Statement 4, "Minimum wage laws cause low-income workers to lose their jobs," is true. Statement 5, "Laws which forbid businesses from raising the prices of necessities are a good way to help the poor," is false. These statements illustrate the effects of price floors and price ceilings. A price floor is an administered government price set above the equilibrium price. A price floor increases quantity supplied and decreases quantity demanded. Price floors cause surpluses. In the labor market, a surplus of workers means higher unemployment.

A price ceiling set below the equilibrium price increases quantity demanded and decreases quantity supplied. This causes a shortage.

The effects of price floors and price ceilings are thoroughly examined in Unit 2. Although the effects of price ceilings and floors are well known, governments keep imposing them. Alan Blinder in *Hard Heads, Soft Hearts* maintains that policy makers with good intentions can bring about disastrous results when they ignore the laws of economics. In the case of minimum wage legislation and price controls, he says economists often wince at economic policies advocated by politicians.

> Like seeking higher minimum wages despite indications that the minimum wage causes unemployment among teenagers. Or imposing rent controls, even though it has been said that rent control ranks second only to bombing as a way to destroy a city. Or using price controls to hold down energy prices, thereby deluding the nation into acting as if energy was cheap when in fact OPEC had made it dear. In each of these cases, harm was done by those who earnestly sought to do good. (Blinder, 1987)

In a democracy, we pay a high price for economic illiteracy.

Sincerely,

The *Capstone* Authors

Sources

Blinder, A.S. *Hard Heads, Soft Hearts*. Reading, MA: Addison Wesley Publishing Co., 1987.

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Unit 2
Lesson 1
Is What I Like Most, What I Buy? Maybe.

Introduction

Economics This lesson emphasizes the influence of prices on choices individuals make in the market. Prices allow people to compare the value of one good or service to another, and to calculate the costs and benefits of acquisition. Without such information, people would have difficulty making careful choices (i.e., economizing). Price differences are a major reason why people sometimes choose not to buy what they like best. If what they like best has a very high price, and they can buy a reasonable substitute at a lower price, they may choose not to buy the good or service they would prefer if price were not a consideration.

Reasoning Accurate economic analysis requires students to reason carefully, paying attention to something more than familiar ideas that come to mind quickly. In the activities involved in this lesson, for example, students may say that they buy things because they like them. In saying that, they are partly right. But economists know that people also seek to minimize costs. They weigh costs and benefits, using prices as guides. This lesson requires students to consider costs and benefits in an effort to explain instances of economic behavior. If they fail to use both criteria, their explanations and forecasts probably will be faulty. The study of costs and benefits emphasized here is intended to extend, at a more sophisticated level, the study of economizing choices introduced in Unit One.

Concepts

Choice
Cost
Incentives
Price
Substitutes

Instructional Objectives

Students will

1. Discover that price is an important factor influencing an individual's choices in the market.
2. Make economizing choices among products with different prices.
3. Discern the costs and benefits associated with different alternatives.
4. Understand why people substitute a lower-priced item for a higher-priced one.
5. Realize that different people may place different values on the same thing.

Lesson Description

In this lesson students are required to make choices based on price differences.

Time Required

Two class periods

Materials

A transparency of Visual 2-1-1.
One copy for each student: Handout 2-1-1, 2-1-2, 2-1-3, and 2-1-4.
Automobile brochures (to be obtained from local dealers)

Procedure

1. Tell the class that in this lesson they will sharpen their understanding of choices people make when they buy things or choose not to buy them. To get started, it will help to find out what the assumptions are that the class members may make about such choices. To find out about these assumptions, the class will take a short quiz.

2. Distribute the quiz (Handout 2-1-1). Tell the students to answer the questions and provide a reason for each answer. (Do not *count* the quiz for purposes of grading.) Discuss the students' responses to the quiz. (Answers are provided in the Letter to Capstone Teachers for Unit 2).

2. Distribute Handout 2-1-2. Read the letter with the class. Explain that the letter provides students an overview of what they will learn and practice during this lesson. Stress that the lesson focuses on the economic choices individuals make in markets.

   Ask whether students have ever wondered why everyone doesn't dress alike, or why there isn't only one radio station in the area, or why they don't always buy what they like most, or why businesses can sell greater quantities just by having a sale, or why people are willing to produce what we want. Then emphasize that this is a lesson which will help to answer such questions.

3. Understanding economizing behavior allows people to predict the actions of others. This ability to predict extends in particular to choices made in the marketplace. Divide the class into groups of 4-6 members. Distribute Handout 2-1-3. Assign the groups the task of spending $50.00 for each hypothetical person described in the activity. The group

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should use the catalog of items provided in the last portion of the activity sheet. Upon completion of the activity, ask the groups to report on their predictions by listing on the chalkboard the items selected for each hypothetical person described. Compare the students' choices with the following most probable purchases for each person described:

JENNY JONES	
Designer jeans	$26.00
Pen	.50
Pencils (6)	1.50
Spiral notebook	1.00
Name-brand sweater	20.00
Chewing gum	1.00
Total	$50.00
GEORGE HAMMER	
16-oz. hammer	$12.00
Rubber-soled boots	22.50
Soft tape measure	4.00
Men's long underwear	10.00
Total	$48.50
PROFESSOR WASHINGTON	
Current paperback novel	$ 6.00
Soup (4 cans)	2.00
Catfood (4 cans)	2.00
Lightbulbs	2.00
Sale-priced sweater	12.00
Newspaper	1.00
Reading lamp	19.00
Total	$44.00
RICHIE MANN	
Necktie	$14.00
Steaks (2)	8.00
Dishwasher soap	1.00
Light bulbs	2.00
Men's dress shirt	16.00
Wine	7.00
Chewing gum	1.00
Total	$49.00

Discuss the results, using the following questions:

A. Which person's consumer behavior was the easiest to predict? Why?

(Usually the students will predict Jenny Jones' purchases most accurately. The reason is that they have experiences and values similar to hers.)

B. Why do the lists vary so dramatically between the student and the carpenter?

(The carpenter and the student value different things; in making choices the carpenter is influenced by his job.)

C. What overall similarities and differences do you see on the lists? Why do you think they exist?

(All people follow the same decision-making model. They weigh costs and benefits and choose the items that will maximize their satisfaction. Chances are the high-priced items that had lower-priced substitutes were not selected by anyone.)

D. Could the money spent on the items listed be spent on other things? If so, why didn't the people make those choices instead?

(Money can always be spent in different ways and, in fact, the next best use of the $50.00 represents what economists call the "opportunity cost" of the first choice. The reason the money was not spent another way is that the alternative did not provide the same level of satisfaction.)

4. Project the transparency of Visual 2-1-1, "Choosing a Car." Tell the students that you are interested in learning about their preferences for various kinds of automobiles. Specifically, you want to find out which type is their favorite among six types. The types include sport (foreign), sport (domestic), family, compact, 10-year-old used, and pickup truck. The teacher should provide the students with specific information about each type of car by showing pictures and reading from advertising brochures acquired from local dealers. After each automobile type has been discussed (NOTE: DO NOT GIVE PRICE INFORMATION AT THIS POINT), ask for a show of hands by which the students vote for *one* type of automobile as their favorite. Record the votes on the transparency under the section entitled "My favorite automobile is." Discuss the results by asking the students whether they are surprised by the vote. How does our understanding of economizing behavior allow us to predict the results or at least feel that they make sense? Students should realize that people will pay more for the items they prize the most.

After the favorite automobiles have been determined, ask the students if their individual buying behavior would correspond exactly with their individual votes. In other words, would the students *buy* the automobile they voted for? After all, those vehicles are their favorites. By now, some students should realize that actual buying behavior may be different from what is wanted or liked the most. Many people choose to take the "second best" because, when making an economizing choice — that is, by using price to help calculate costs and benefits — the less favored choice may actually provide the buyer with the highest level of satisfaction. The satisfaction received from an automobile per dollar spent is actually the important consideration. At this point write down the prices for the automobiles listed on the transparency. The prices should be stated both as a total price and as a monthly payment based on a 48 month contract.

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Given *this* information, the students then should cast their "dollar votes." Record the dollar votes on the transparency. Remind the students that this vote attempts to determine which automobile they will actually buy. It is acceptable to have some students choose not to vote for any automobiles; the prices may exceed the level at which students are willing to purchase.

Compare the results of the *favorite vote* with the *dollar vote*. Note the number of people who did/did not change their votes. Ask why people buy an automobile that wasn't their favorite when their favorite was available. Point out that people often substitute lower-priced items for higher priced items when the amount of money saved from the substitution can, in fact, increase their satisfaction by being used elsewhere. Distribute Handout 2-1-I. Using the *HDG*, review student decisions to buy automobiles that are not their favorites. The analysis should demonstrate that proper economizing behavior may mean people do not buy their first choice when price differentials are considered.

Closure

Use the following questions:

A. How do prices help people make choices in the market?

(Prices are a measure that allow people to calculate the costs and benefits of various consumer choices.)

B. Why do people buy different things when they have basic similarities as human beings?

(People have differing life experiences and goals. They acquire satisfaction from dissimilar things and at varying rates.)

C. Why would people buy a good or service when another one exists that they like better?

(Proper economizing behavior suggests that choices in the marketplace should be made on a satisfaction per-dollar basis. This causes people to substitute lower-priced items for higher-priced items in some cases.)

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Visual 2-1-1
Choosing a Car

Dollar vote	My Favorite automobile is		Price today
# _____	Domestic sport	# _____	$ _____
# _____	Family	# _____	$ _____
# _____	Compact	# _____	$ _____
# _____	Pickup Truck	# _____	$ _____
# _____	Foreign sport	# _____	$ _____
# _____	10 year-old used	# _____	$ _____

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Unit 2
Lesson 2
MARKETS INVOLVE PEOPLE
A Market In Wheat

Introduction

Economics Everybody is a consumer, and therefore a buyer in the marketplace; some of us also are sellers. Each day these roles are played out in many markets and can be observed in every mall and on mainstreet. Yet the bright lights and sophisticated storefront displays of retail markets make the marketplace appear to be more complicated than it actually is. Markets, no matter how complex, are essentially institutional arrangements through which buyers and sellers can exchange goods and services. Markets may involve particular places or environments, but it is the arrangement permitting exchange that is crucial.

This lesson helps students to practice market roles and to notice the incentives that operate in a market to drive prices, consumption, and production to equilibrium levels. In a market simulation presented here, students can see how competition among sellers acts to force prices downward while competition among buyers acts to push prices upward. The simulation creates an opportunity for all students to have experiences that serve as a springboard for the study of analytical concepts like *competition*, *incentives*, *supply*, *demand*, and the *market-clearing price*.

Reasoning No new reasoning principles are introduced here. Students may make new applications of principles related to choice as they focus on markets. They should think of markets as environments. Individuals make choices that influence their economic actions; this is a basic premise of economic reasoning. A market represents one environment in which people attempt to improve their well-being by responding to incentives to trade with others. In this lesson, students should reflect on the behavior they observe and relate it to the concepts of *choice* and *incentives* which underlie the supply and demand analysis of a market.

Concepts

Supply
Demand
Markets
Market-clearing (or equilibrium) price
Choice
Competition
Incentives

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Adapted from *Teaching Strategies: High School Economics Courses*. National Council on Economic Education, 1985.

Instructional Objectives

Students will

1. Participate in the market simulation.
2. Make economizing choices as buyers and sellers (demanders and suppliers).
3. Provide examples of how competition influences market prices.
4. Understand how exchange creates gains or losses in profit.
5. Name the incentives that encourage consumers and producers to participate in the market as buyers and sellers.
6. Realize that most exchanges occur in the market.

Lesson Description

In this lesson students participate in a simulated commodities market. They assume the roles of buyers and sellers of wheat and attempt to maximize the income they earn from their exchanges in the marketplace.

Time Required

Two class periods

Materials

Thirty-two Buy Cards (Figure 2-2-1) and thirty-two Sell Cards (Figure 2-2-2), according to the following distributions:

BUY CARDS		SELL CARDS	
Buy Price	**No.**	**Sell Price**	**No.**
$3.50	2	$3.50	4
3.70	2	3.70	6
3.90	2	3.90	6
4.10	2	4.10	4
4.30	4	4.30	4
4.50	4	4.50	2
4.70	4	4.70	2
4.90	4	4.90	2
5.10	4	5.10	2
5.30	4		

A transparency of Visual 2-2-1.
One copy for each student: Handout 2-2-1, 2-2-2, 2-2-3, and 2-2-4
Armbands as described in item 1 of Handout 2-2-1.

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Procedure

1. Distribute Handout 2-2-1 and read it with students. (NOTE: You may wish to designate one student to handle the distribution and receipt of the Buy and Sell cards during the simulation and another to record each transaction on the tally sheet. Buy and Sell cards should be kept apart and shuffled between rounds.)

2. Clear center of room and designate it as the marketplace.

3. Divide class into two equal groups. One group will be the sellers, the other the buyers. Explain that buyers will be buyers throughout the simulation, and sellers will be sellers throughout the simulation. Give sellers their armbands.

4. Hand out individual score sheets (Handout 2-2-2) on which participants can record their transactions. Review details of the score sheet if necessary.

5. Make sure students know how to calculate profit on their score sheets.

6. Explain that you will conduct five rounds of trading sessions at five minutes per round. After the first round, tell students it was for practice but that the next four rounds will count. Announce to the students when one minute remains in each round.

7. After each trading round, allow students time to figure their net losses and gains — their profit. Before discussion (Procedure 10) have students calculate their total profit or loss in rounds 2 through 5.

8. Encourage students to make as many deals as they can in the time permitted. Explain that it is permissible to take a loss in order to get a new transaction card. Try not to give away the fact that the students who will have the highest profits are usually those who engage in the most transactions. This fact will be "discovered" during the discussion following completion of the game (Procedure 10).

9. During non-trading time between rounds 1 and 2, direct students' attention to the market record on the tally sheet. Say that it contains useful information for them. Do not elaborate.

10. Conduct post-game discussion:

    A. At what price was wheat sold most frequently in each round?

    (Have students examine data on their score sheet and on the class tally sheet.)

    B. In which round was there the greatest spread in price?

    (Examine data.)

    C. Why did the prices become less varied?

    (Greater competition is the most important cause for the clustering of prices. This phenomenon represents the tendency of a competitive market to move toward a market-clearing or an equilibrium price — the price at which the amount buyers wish to buy is just equal to the amount sellers wish to sell — as information increases.)

    D. Who determined the "market price" for wheat — the buyers or the sellers?

    (Both buyers and sellers did so by their interactions in the marketplace.)

    E. How did supply and demand influence the market?

    (Sellers tried to get higher prices; buyers tried to get lower prices. Because there was competition among members of each group, no one could exercise control over the price.)

    F. Why were some students able to make more total profits than others?

    (Probable answer: They were able to conclude many transactions, each of which yielded a small profit.)

11. The Buy and Sell cards may also be used for an exercise in graphing. The information on the cards can be converted into supply and demand schedules and employed to construct a graph. The graph will consist of a line for market supply and a line for market demand. The point at which the lines intersect represents the equilibrium, or market price, for these schedules of supply and demand.

    Distribute Handouts 2-2-3 (blank graph) and 2-2-4 (the summarized data). Tell the students to construct the graph by placing dots at the points that correspond to all the combinations of prices and quantities given in the supply schedule contained in Handout 2-2-4. They should then do the same, but by using crosses instead of dots, for the demand schedule. Connecting the supply dots produces the supply schedule; connecting the demand crosses produces the demand schedule. Remind the students to label each curve. When they have finished, project a transparency of Visual 2-2-1, or give each student a copy of it.

    The graph indicates that, if given enough time, a perfectly competitive market would reach an equilibrium price of $4.30 per bushel, and that 240 bushels of wheat would be sold at that price. Obviously, a price of about $4.30 will not prevail until students have played a few rounds or until they learn the game. But as the students' experience accumulates, their transactions should start to move toward the equilibrium price.

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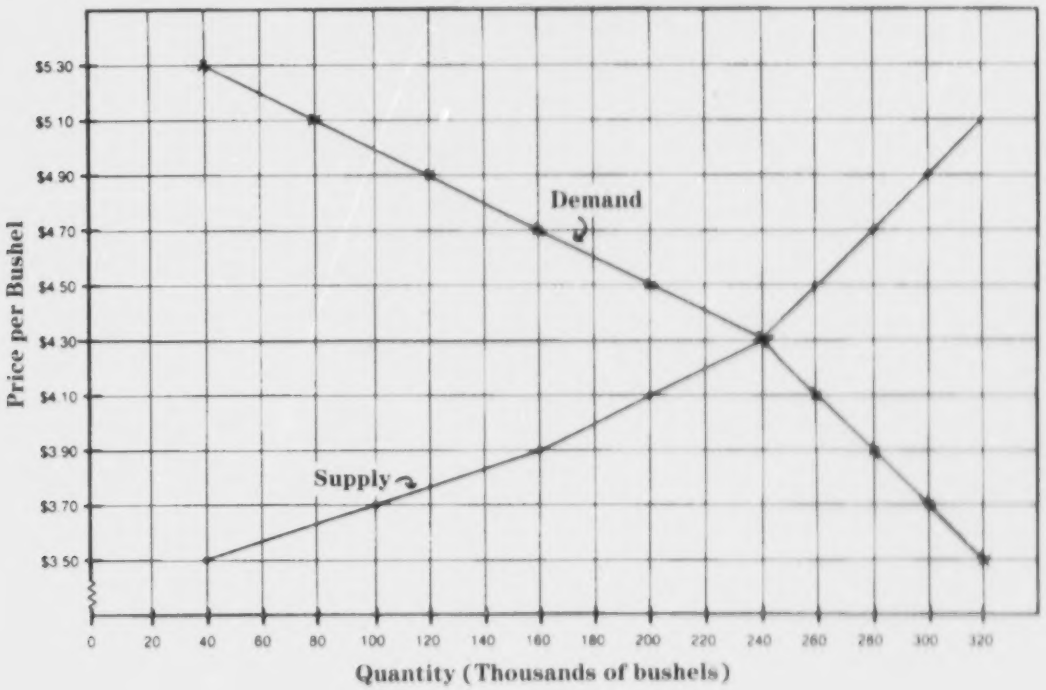
Wheat Supply and Demand



12. After students complete the graphing exercise, ask:

    A. What does the demand schedule show?

    (The quantities of wheat demanded at various prices. Explain to students that this schedule is what economists mean by the shorthand term "demand.")

    B. What does the supply schedule show?

    (The quantities of wheat supplied at various prices. Explain to students that this is what economists mean by the shorthand term "supply.")

    C. What relationship exists between the price of a good or service and the quantity people are willing to buy?

    (When prices rise the quantity demanded decreases, and vice-versa — assuming other conditions remain unchanged. This relationship is called the law of demand.)

    D. What relationship exists between the price of a good or service and the quantity people are willing to supply or produce?

    (When prices rise, the quantity supplied increases, and vice-versa — assuming other conditions remain unchanged. This relationship is called the law of supply.)

13. Optional. Use these activities to show how changes in supply or demand affect price.

    A. Conduct one or more additional rounds of the game but cut the number of Sell Cards of each denomination in half. Have students record their transaction prices and their gains or losses on their score sheets. Examine the tally sheet and ask students to explain how and why prices changed as they did.

    (Prices should have increased because of a decrease in supply.)

    B. Next, conduct one or more additional rounds with the number of Buy Cards of each denomination cut in half. Have students record their transactions. Examine the tally sheet and ask students to explain how and why prices changed as they did.

    (Prices should have decreased because of a decrease in demand.)

14. The Wheat Market simulation has created a common base of experience for the class about supply and demand behavior and price determination. To demonstrate the power of the simulation and its content, ask the following questions:

    A. Did you first attempt to buy/sell wheat to/from a friend?

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(Generally the students will seek someone with whom they have a comfortable relationship to make an exchange.)

B. If your friend wanted to sell for a high price or buy at a low price, did you transact business with that person?

(Often the students will seek an alternative person from whom to buy/sell.)

C. What do you predict would happen if one-half of the sellers were called out of the classroom during the game?

(Prices would rise and the number of transactions would fall.)

D. What do you predict would happen if all buyers could increase the amount they would be willing to pay for wheat by one dollar per bushel?

(The price for wheat would increase, and the number of transactions would increase.)

E. From behavior during the game, what conclusion can be drawn about the relationship between price and the quantity demanded? Between price and the quantity supplied?

(When the price rises, the quantity demanded falls. When the price falls, the quantity demanded increases. When the price rises, the quantity supplied increases. When the price falls, the quantity supplied decreases.)

15. Assign members of the class the task of collecting questions they and others have about events in real marketplaces. These questions should be specific in nature and may relate to seemingly strange circumstances. Direct the students to place their questions on separate strips of paper to be used as a "high school bowl" question bank. Divide the class into 2-5 teams. It will be the teacher's task to ask the questions, judge the accuracy of the answers, and keep score in order to determine the winning team. Before the bowl begins, remind the students to use their Wheat Market simulation experience to answer the questions.

16. Sample "high school bowl" questions follow. To play the game successfully, students must produce more questions.

A. What will producers of baseballs do if a price ceiling is imposed on their product so they cannot sell it for the market-clearing price?

(Some baseball sellers will decide to produce some other product and supply that to the market, or go out of business. Others may sell illegally at a price above the ceiling — at a so-called "black market" price.)

B. Who sets the price of a good or service?

(Producers set a price — it may often be a guess at first. The price changes if too few or too many are sold. Competition sets the price over the long run.)

C. What makes the price for a good or service change?

(Competition on the selling or buying side of a market may change if the number of buyers or sellers changes, if their numbers change relative to each other, if the sellers' costs change significantly, if the incomes of buyers change significantly.)

D. Why is it difficult for people to decide how to spend their money in the marketplace?

(More good alternatives exist than they have money to purchase.)

E. Why did Cabbage Patch dolls in 1987 sell for such a high price relative to other dolls?

(The quantity demanded exceeded the quantity supplied, putting upward pressure on the price of Cabbage Patch dolls.)

F. Why did the Cabbage Patch manufacturer continue to produce these dolls even when the selling price fell to a much lower point?

(The price was still high enough to exceed the manufacturer's next best option.)

Closure

Ask each member of the class to write a short notebook entry to himself or herself, telling in a sentence or two what one main idea is from Lesson 2. Call on some students to read their notes aloud. Discuss briefly.

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Figure 2-2-1
Buy Cards
(Duplicate for a total of 32 cards)

You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $5.30 per bushel, for a total of $53.00, you lose money.	You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $5.10 per bushel, for a total of $51.00, you lose money.	You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $4.90 per bushel, for a total of $49.00, you lose money.
You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $4.70 per bushel, for a total of $47.00, you lose money.	You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $4.50 per bushel, for a total of $45.00, you lose money.	You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $4.30 per bushel, for a total of $43.00, you lose money.
You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $4.10 per bushel, for a total of $41.00, you lose money.	You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $3.90 per bushel, for a total of $39.00, you lose money.	You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $3.70 per bushel, for a total of $37.00, you lose money.
	You are authorized to BUY 10 bushels of wheat, paying as little as possible. If you pay more than $3.50 per bushel, for a total of $35.00, you lose money.	

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Figure 2-2-2
Sell Cards
(Duplicate for a total of 32 cards)

You are authorized to SELL 10 bushels of wheat for as much as possible. If you accept less than $5.10 per bushel, for a total of $51.00, you lose money.	You are authorized to SELL 10 bushels of wheat for as much as possible. If you accept less than $4.90 per bushel, for a total of $49.00, you lose money.	You are authorized to SELL 10 bushels of wheat for as much as possible. If you accept less than $4.70 per bushel, for a total of $47.00, you lose money.
You are authorized to SELL 10 bushels of wheat for as much as possible. If you accept less than $4.50 per bushel, for a total of $45.00, you lose money.	You are authorized to SELL 10 bushels of wheat for as much as possible. If you accept less than $4.30 per bushel, for a total of $43.00, you lose money.	You are authorized to SELL 10 bushels of wheat for as much as possible. If you accept less than $4.10 per bushel, for a total of $41.00, you lose money.
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Visual 2-2-1
Class Tally Sheet

Price Per Bushel	Round 1	Round 2	Round 3	Round 4	Round 5	Total of Rounds 2-5
$3.50						
$3.70						
$3.90						
$4.10						
$4.30						
$4.50						
$4.70						
$4.90						
$5.10						
$5.30						

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Unit 2
Lesson 3
A Picture is Worth a Thousand Words: Demand

Introduction

Economics The law of demand predicts consumer behavior. It states that relationships exist between the amount consumers will purchase (quantity demanded) and the price for which an item sells. As the price increases, the quantity demanded falls. As price decreases, the quantity demanded will increase. These relationships directly help to determine economizing choices. As prices increase, the anticipated benefit does not change but the opportunity cost increases; therefore consumers respond to the changed incentives and purchase less of the product. When prices decline, the anticipated benefit remains the same but the opportunity cost declines; therefore, consumers tend to purchase more.

Reasoning The concept of *demand* is an elaboration of two key assumptions: that people economize, and that people respond to incentives in predictable ways. Students can use *demand* and the related assumptions to explain why consumers purchase more at lower prices than they do at higher prices (a low price may be a positive incentive; a high price may be a disincentive; and buyers will try to choose the best deal among the alternatives available to them). Also, students can learn to use the *demand* concept as a means to forecast what buyers *will do* when prices change —not merely as record of what buyers have done in past instances.

Concepts

Choice
Demand
Incentives
Substitutes
Price
Graphs

Instructional Objectives

Students will

1. State how price changes influence the quantity of a product consumers are willing and able to buy.
2. Graph an example of consumer demand on a set of axes.
3. Use the law of demand to predict consumer behavior in the marketplace.

Lesson Description

This lesson asks students to analyze the relationship between changing prices and changes in consumer behavior. Students then summarize this information on a graph.

Time Required

One class period

Materials

An item of value (cassette tape of a famous rock group, varsity game tickets, candy bar, etc.) for a classroom auction.
A transparency of Visual 2-3-1.
One copy for each student: Handout 2-3-1.

Procedure

1. Write the word SALE on the chalkboard. Ask the class, "Why do businesses put items on sale?" (Typical student answers — to sell more merchandise, to get rid of surplus merchandise, to increase consumer demand. Remember this last *incorrect* answer and help students later to understand the difference between changes in demand and changes in quantity demanded.)
2. After that short discussion, explain that when businesses run sales, their managers are attempting to predict consumer behavior; they think that buying will increase because prices are lower.
3. Explain that the class will now conduct an experiment to see whether such predictions of consumer behavior are correct.
4. Tell the class you have several cassette tapes (or any other popular, inexpensive items) for sale. You will sell at a price you think is fair, but you want to do a market survey first.
5. Select a student and have that person put the following table on the chalkboard (change the *suggested price* to accord with the item you will offer to sell):

Suggested price	Quantity demanded
$2.50	
$2.00	
$1.50	
$1.00	
$ .50	

6. Ask how many students would buy a cassette tape (or whatever item you offer) at $0.50, and record the number. Then ask for a student response to each price in your example. If students wish to buy more than one at a stated price, add that number to the total for that price.

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7. Choose the price which allows you to sell all the items you have available. (Example: If you brought 10 cassettes and 10 students chose to buy at $1.00, pick that price.)

8. Conduct a discussion of the auction data using the following questions:

   A. Did anyone choose not to bid on the item at any price?

      (Usually students will bid at very low prices even though they may not want the item because they see an opportunity to sell the item later for a profit. Sometimes they don't bid at all. This is no new problem — it also happens in real life. For example, when was the last time you tried to buy a Mercedes Benz for $2,000?)

   B. What goes through your mind before you decide to make a bid?

      (Are the benefits derived from this purchase equal to or greater than my next best alternative — my opportunity cost?)

   C. Why does a higher price reduce the number of items demanded?

      (Higher prices increase the number and value of alternative uses for the money. The alternatives may provide more satisfaction for a given amount spent. Higher prices also reduce an individual's total purchasing power.)

   D. Once a price is established in the market, does it stay the same for long periods?

      (Generally not, because consumer preferences as well as other key variables that influence demand may change.)

9. Tell the class that all the information gained from the auction may be pictured on a graph. The particular type of graph required is called a line graph. Using a transparency of Visual 2-3-1, draw the information recorded on the chalkboard.

10. Distribute Handout 2-3-1 to the class. Ask the students to work in pairs to complete each step culminating in drawing a graph to illustrate demand for Japanese VCRs.

11. After the students complete handout 2-3-1, continue recording the auction information on the graph. Clearly label the line graph *Demand*. Ask the students to summarize in their own words the information displayed on the graph. Synthesize the students' remarks into one statement reflecting the law of demand as follows: normally as prices for goods or services rise, the quantity people are willing and able to buy declines; normally as prices for goods or services fall, the quantity people are willing and able to buy increases.

Closure

Assign the students the task of finding and observing an event or idea in their community that demonstrates the law of demand in action. Tell the students that they may use the broad view of price (i.e., that price includes not only the money prices, but any other drawback or inconvenience involved in acquiring the benefits of a good or service); consequently the law of demand works when relative prices change. Provide a few examples in class to make sure that the students understand the task. If necessary, provide a list of possible areas in which the students might search for their example. Give the students a date by which to report a brief draft account of their example. Allow some class time for responses to a few of these drafts, again to make sure that students are on the right track. The final version of the report may be handed in as a paper or presented orally, depending on time constraints. Encourage use of graphics in either case.

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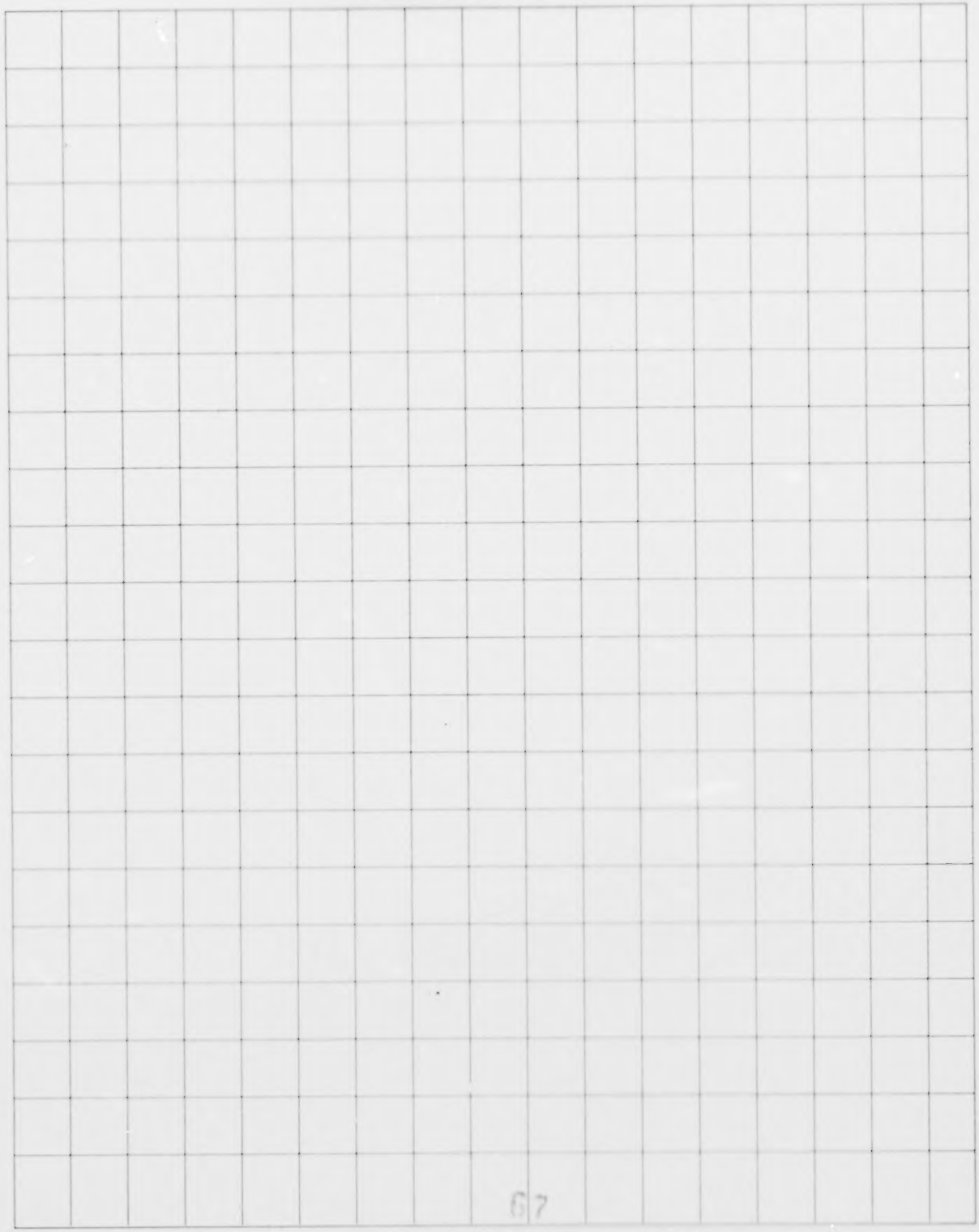
Visual 2-3-1



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Unit 2
Lesson 4
A Picture is Worth a Thousand Words: Supply

Introduction

Economics The law of supply predicts producer behavior. It states that a stable relationship exists between the amount supplied by producers and the price for which an item sells. As the price increases, the quantity supplied will increase. As the price decreases, the quantity supplied will decrease. These relationships help us to predict how producers will behave when prices in the marketplace change and the producers alter their economizing choices. When the prices producers receive increase, the higher revenue will exceed the level of opportunity costs previously considered relevant; consequently producers respond to these positive incentives and increase their production. When prices decline, the lower revenue will fall short of the level of opportunity costs previously considered relevant; consequently producers will reduce their production.

Reasoning The concept of *supply* also extends the two key assumptions we considered in studying *demand*: i.e., people economize, and people respond to incentives in predictable ways. Students can use *supply* together with the related assumptions to explain why producers produce more products at higher prices than at lower prices. (Higher prices provide greater income — and incentive — and compensate producers for higher opportunity costs, changing their economizing decision about the best deal available to them.) And, again, students can learn to think about *supply* in relation to forecasts: what *will* producers do in case prices change in certain ways? Neither *demand* nor *supply* pertains only to the analysis of economic events in the past.

Concepts

Choice
Supply
Incentives
Substitutes
Price
Graphs

Instructional Objectives

Students will

1. State how changes in price will influence the quantity of a product suppliers are willing and able to bring to market.
2. Graph an example of producer supply on a coordinate axis system.
3. Use the law of supply to predict producer behavior in the marketplace.

Lesson Description

This lesson asks students to analyze the relationship between changing prices and changes in producer behavior. Students then summarize this information on a graph.

Time Required

One class period

Materials

A transparency of Visual 2-4-1.
One copy for each student: Handout 2-4-1.

Procedure

1. Write the word PRODUCER on the chalkboard. Ask the class to offer definitions of the term. The definitions will usually refer to owners of businesses. Encourage students to extend their definition to anyone who works or who helps to provide goods and services to others. This definition will help students realize they will be producers most of their lives.

2. Ask students how we encourage people to work and produce. How can we predict when someone will supply products for the market? Remind them that incentives help people to become suppliers.

3. Explain to the students that they are about to take part in an experiment that will provide information regarding suppliers' behavior. This information will be used to reach conclusions about how suppliers act in the marketplace.

4. Distribute Handout 2-4-1. Tell students that you wish to tabulate the number of work hours that are available from students in this class. The questionnaire has been prepared for this purpose. The students are to fill out the questionnaire as best they can.

5. When the students have filled out the questionnaire, tabulate the results on the chalkboard using the following table.

LABOR IN THE MARKETPLACE

Hourly pay	Number of hours willing to work per week
$	
$	
$	

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Conduct a discussion about the data, using the following questions.

A. *Did* anyone choose not to supply labor at any wage rate?

(Usually students will choose to supply labor hours at the high wage rates. However, except for their mandatory school commitment, some students may value other activities so greatly that they will not give them up to work.)

B. What influences your decision to work or not to work?

(Are the benefits derived from working equal to or greater than my next best alternative?)

C. Why does a higher wage increase the number of people willing to work and/or the number of hours worked?

(Higher wage rates increase the incentive to work. The benefits from work at higher wages are greater relative to the opportunity costs.)

D. Would a different group of people fill out the questionnaire differently?

(People value things differently and consequently make different choices. It is conceivable that some classes will want to do more work at a particular wage, and other classes less.)

6. Explain to the students that all of the information gained from the questionnaire can be pictured on a line graph. Use the graph on Visual 2-4-1 to illustrate the information on hourly pay and hours worked. Use the information you recorded in Procedure 5. Clearly label the line on the graph.

Closure

Ask the students to summarize the information displayed on the graph in their own words. Synthesize the students' remarks into one statement reflecting the law of supply: As prices for goods and services rise, the quantity of work or products people are willing and able to produce increases; as prices fall, the quantity of work or products people are willing and able to produce declines.

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Visual 2-4-1

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Unit 2
Lesson 5
How Do Price Changes Influence My Behavior?

Introduction

Economics The price elasticity of demand measures the flexibility of consumers' responses to price changes. Price elasticity is calculated by dividing the percentage change in quantity demanded divided by the percentage change in price. If an increase or decrease in price results in little change in quantity demanded, the demand for that good or service is called "inelastic." When the percentage change in quantity demanded is noticeably or substantially greater than the percentage change in prices, the demand is called "elastic."

The price elasticity of supply is calculated by dividing the percentage change in quantity supplied by the percentage change in price. It measures the supplier's responsiveness to price changes.

Reasoning People choose among alternatives — this is the basic assumption that underlies all economic reasoning. *Elasticity* is a sophisticated extension of that basic premise. Some choices involve more alternatives (substitutes) than others. Some choices involve a lower cost of choosing alternatives than do others. The number of alternatives and the cost of choosing an alternative both influence the flexibility a consumer has when the price of a desired good or service changes.

Concepts

Choice
Supply
Demand
Substitutes
Elasticity
Price

Instructional Objectives

Students will

1. Realize that different product characteristics (real and perceived) influence people's responses to price changes.
2. State two characteristics which make consumer demand less elastic.
3. Conclude that long-run substitutes exist for all goods and services.
4. Realize that a supplier's ability to respond to price changes is affected by time, technology and costs of production.

Lesson Description

In this lesson students will review consumer and producer behavior as they relate to changing prices. They will make predictions regarding market behavior given specific price changes and product characteristics. They will predict consumer behavior based on different prices and product characteristics.

Time Required

Two class periods

Materials

One copy for each student: Handout 2-5-1.
Glue, scissors, four different colored crayons, paper clips.
Ream of copy paper.
Advertisemenets from newspapers, catalogs, and magazines.

Procedure

1. Divide the class into groups of 4 to 6 students. Tell each group it is now living on its own, with a dog. The members no longer live at home and they must share an apartment. They have very little income —only $600 per month when they all work. To survive in this situation, they must develop a budget.

2. Distribute Handout 2-5-1 to each group. Assign the group the task of filling out the first month of the budget form as accurately as possible. At this time it may be helpful for the teacher to make catalogs and newspaper ads available to give the students information on local prices and on product availability.

3. Remind each group that it has a collective income of $600 per month. This amount is fixed, given the jobs the individuals have and the number of hours they can work. Certain expenses must be included in the budget. These expenses are fixed and can only be changed by the teacher.

4. Upon completion of the first month's budgets, allow each group to present its budget plan to the class as a whole. Require each group to discuss the assumptions that influenced its choices. For example, did the group see itself living a long distance from their parents' home, able or unable to go home, older than its members actually are, living as a group for a short time or "forever"? Direct the class to note the similarities and the differences in the groups' budgets. Have students explain why these similarities and differences exist in the budgets.

5. In order to see how well the group can adjust to new circumstances, indicate that the group must now construct its second month's budget. This

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budget must be developed with the following new conditions in mind:

A. The charge for electricity has increased by 10 percent.

B. Fuel for heating has gone down 5 percent in price.

C. Prices for party snacks have been reduced by 50 percent.

D. Gasoline prices and bus fares have risen by 75 percent.

E. Prices for basic foods have gone up 15 percent.

F. Clothing prices have stayed the same.

G. Pet food prices have doubled.

H. The cost of telephone service has been reduced by 3 percent.

I. Movie, concert and sports event tickets have tripled in price.

J. Housing costs remain the same.

6. Upon completion of the second month's budget, ask the groups to report again to the class. Note how the groups adjusted to the changing prices. Pick out the categories that had a large change in expenditures when prices changed a little and when they changed a lot.

7. Discuss the second budget.

   A. Are there any consumption categories where higher prices did not cause you to purchase less of the good or service?

      (It is possible that the groups will not cut back on items they perceive as necessities — e.g., gasoline or bus fares, heating fuel, and electricity.)

   B. In what category did your purchases change most?

      (The category that is perceived by the group to have the greatest number of close substitutes.)

8. Summarize the material taught in this activity by stating the following information:

   The relationship between a price change and the quantity demanded is determined by the elasticity of demand. A highly elastic demand exists when the product has or is perceived to have many substitutes — in other words, when the good or service is not viewed as unique. An inelastic demand exists when the product in question has or is perceived to have few substitutes — in other words, when it is viewed as unique or as a necessity.

9. To demonstrate how the concept of elasticity helps to explain the behavior of suppliers, divide the class into two manufacturing businesses. Inform each group that it is a manufacturer of paper airplanes.

   Company A must design an airplane that is made of an $8\frac{1}{2}$ x 11 inch piece of paper with no name, number, or required weight; no tools should be required to construct the airplane, and it is not necessary that the airplane be able to fly.

   Company B must design an airplane that is made of two pieces of $8\frac{1}{2}$ x 11 inch paper, has a name and number written in two colors, is constructed by use of a scissors, glue, and a paper clip. In addition, the plane must fly at least six feet.

   Once the planes have been designed, have each group show its plane to the class. Inform the class that you are the purchasing agent for a major airline and will be making contracts with the airplane manufacturers. In this capacity, you must know how responsive each company is to contract requests. Ask each group the following questions:

   A. How many planes can you make in five minutes?

   B. How many resources are used in the manufacture of your airplane?

   C. How many more airplanes can you make for me if I triple the amount I am willing to pay for the airplanes?

   D. Why is it more difficult for Company B to respond to a price change?

   E. What types of producers can respond quickly to changes in prices?

      (Products that are easy to produce and that do not need special resources, skills, money, or a great deal of time to make.)

10. Summarize the results of this activity by stating the following:

    Suppliers whose products take a long time to produce, or who use techniques, materials, or human skills that are hard to find or to acquire or to keep, cannot increase or decrease production rapidly and therefore cannot respond quickly to changing prices. Their products tend to be *inelastic* as prices change. Products that tend to be *elastic* as prices change usually are easy to produce and can be manufactured quickly and inexpensively.

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Closure

In order to provide additional practice and to keep the idea of forecasting fresh in students' minds, ask whether the following products will have elastic or inelastic demand and supply, as prices might change.

Demand	**Answers**
Pencils	Elastic
Petroleum	Inelastic
Hershey bars	Elastic
Kidney (person needing a transplant)	Inelastic
VCRs	Elastic

Supply	**Answers**
Soy beans	Elastic
TV sets	Elastic
Insulin	Inelastic
Kidney transplants	Inelastic
Diamonds	Inelastic

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Unit 2
Lesson 6
Marginal Analysis

Introduction

Economics Marginal analysis is an important tool of economics. The term "marginal," as used in economics, means the "next" or "additional" quantity or unit of a good or service, or the next unit of a benefit or cost. Marginal analysis helps students focus on changes in behavior and on incentives as they influence people in predictable patterns. The law of diminishing marginal returns guides most analysis of consumer demand. It suggests that a consumer gains less additional satisfaction (referred to in many economics textbooks as "utility") from the purchase of each additional (marginal) unit of a good or service. This principle explains certain changes consumers make in their buying behavior.

Reasoning Marginal decision-making depends, at least in theory, on a consideration of certain questions: What are the benefits and costs of my forthcoming decision? Do the benefits outweigh the costs? Economic reasoning assumes that the best choices are made by using marginal analysis. To "economize at the margin" means to weigh the anticipated costs and benefits of the next or additional action. This assumption is consistent with the premises underlying choice and opportunity cost. True opportunity costs lie in the future. Sunk costs are costs already incurred, as a result of decisions which cannot be changed. For example, proper marginal decision-making would not allow people to justify a choice by saying that one sweater should be worn rather than another because they paid a great deal of money to buy it last week. Nor does correct marginal analysis permit one to say: "Let's keep working on our current project because we have already spent a great deal of money on it."

Concepts

Choice
Cost-Benefit
Marginal analysis
Diminishing marginal utility
Sunk cost

Instructional Objectives

Students will

1. Use marginal reasoning to make choices.
2. Observe the manner in which consumer satisfaction changes.
3. Recognize how decisions based on marginal analysis can improve consumers' satisfaction.

Lesson Description

In this lesson the students will experience a change in consumer satisfaction and practice making choices at the margin.

Time Required

One class period

Materials

Miniature candy bars (ten per class)
One copy for each student: Handout 2-6-1.

Procedure

1. Explain to the class that economic reasoning assumes that people buy and use goods and services because they expect those purchases to give them satisfaction. The term "utility" is used in economics to describe personal satisfaction. Since utility is a measure of personal preference, it may change. This lesson shows how marginal analysis can help students predict changes in consumer satisfaction.

2. Conduct the following experiment in class:

   A. Tell the class you plan to measure the satisfaction an individual gets from eating candy bars.

   B. Ask for a member of the class to volunteer to eat candy bars.

   C. Select one of the volunteers.

   D. Sit the volunteer in front of the class where everyone can see what the volunteer does during the experiment.

   E. Place the following table on the chalkboard.

TOO MUCH IS TOO MUCH

Utility rank (Scale of 1-5)	Number eaten	Price willing to pay
		$
		$
		$
		$
		$
		$
		$
		$
		$
		$

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F. Give the volunteer the first candy bar to eat. After the bar is consumed, ask the volunteer how much additional satisfaction or utility was gained (on a scale of 1-5, 5 being the highest) and the value of the benefit — i.e., how high a price would you pay for this bar? Continue the process for the second candy bar, third, etc.

G. When the additional utility from the additional bar consumed falls to a low level or zero, end the activity.

H. Tell the students that they have just observed the principle of diminishing marginal utility in action. Read the definition of diminishing marginal utility given in your textbook.

I. Discuss the implications of this principle for choice-making by using the following questions:

1. What influences your level of satisfaction or utility when you consume a product?

   (Personal values and tastes, plus the number of those goods or services previously consumed.)

2. When we say we like candy better than fruit, and when both sell for the same price, does this mean we will always buy candy and never buy fruit? Explain.

   (Candy may be the first choice, but after some candy has been consumed its marginal utility will fall relative to fruit and fruit may become the most satisfying at that point.)

3. Using the information on the TOO MUCH IS TOO MUCH table and your own understanding of choice-making, tell me when you would stop buying candy bars and begin to buy something else?

   (When the marginal utility per dollar is greater for an alternate product.)

J. Tell the class that people use the insight gained from the diminishing marginal utility experiment in their everyday lives. Specifically, the experiment suggests that every potential decision is a new condition for which the costs and benefits must be assessed.

K. Distribute Handout 2-6-1. Direct students to analyze the situations and select the choice that reflects the best economizing analysis. Correct the handouts. The correct answer in every situation is "No."

Closure

Read **Case 1** and **Case 2** to the class. They should tell which case does, and which does not, involve a decision based on marginal analysis.

Case 1 A U.S. Senator speaks in favor of additional government spending for a river navigation project, arguing that 13 billion dollars already have been poured into the project.

Case 2 Sally, a high school dropout, decides to quit her job and go back to school because she thinks now that a high school diploma will allow her to lead a better life than she could achieve without one.

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Unit 2
Lesson 7
The Market Never Stands Still

Introduction

Economics Supply and demand relationships in the market frequently change, creating new market clearing prices. The factors that affect supply and demand are called, respectively, the "determinants of supply" and the "determinants of demand."

Reasoning The determinants of demand and determinants of supply influence the economizing decisions made by individuals. This lesson helps students to understand how changes in prices, incentives, and costs influence changes in a market. Such understanding will enhance their ability to predict economic behavior.

Concepts

Supply
Demand
Markets
Prices
Graphs
Charts

Instructional Objectives

Students will

1. List and describe the determinants of demand.
2. List and describe the determinants of supply.
3. Determine, under specific conditions, in which direction a demand curve would shift.
4. Determine, under specific conditions, in which direction a supply curve would shift.
5. Describe shifts in demand and supply curves as increases or decreases.
6. Explain the difference between a change in demand and a change in the quantity demanded.
7. Explain the difference between a change in supply and a change in the quantity supplied.

Lesson Description

The lesson explains the determinants of demand and the determinants of supply. It requires the students to describe or to graph the market consequences when one or more of these determinants change.

Adapted from *Teaching Strategies: High School Economics Course*, National Council on Economic Education, 1985.

Time Required

Two class periods

Materials

A transparency of Visual 2-7-1.
One copy for each student: Handout 2-7-1, 2-7-2, and 2-7-3.
Newspaper clippings of instances when supply or demand changed.

Procedure

1. Explain to the class that the purpose of this lesson is to learn how demand and supply can change.
2. Distribute Handout 2-7-1 to the class. Display Visual 2-7-1. Focus on the demand curves. Point out that a movement of demand from curve D_1 to curve D_2 is an increase in quantity demanded for every given price. If the demand were to shift from curve D_2 to curve D_1, there would also be a shift in demand, but the shift would mean a decrease in quantity demanded for each given price.
3. Drive home to the students that an increase in the demand for doughnuts means that more doughnuts are demanded at every price. Ask questions such as these:
   A. What quantity of doughnuts is demanded at point A? (20) At point B? (40)
   B. What quantity is demanded at point C? (40) At point D? (60)
   C. What quantity is demanded at point E? (50) At point F? (70)
   D. What conclusion can be drawn from these data?

   (On demand curve D_2, 20 more doughnuts are demanded at every price than on demand curve D_1.)
4. Ask a student to draw a curve on the transparency that illustrates a decrease in demand from D_1. Have the student label the curve D_0. (Curve D_0 should be to the left of D_1.)
5. Ask the students whether a movement from point A to point C on curve D_1 shows an increase in the quantity demanded, which was caused by a decrease in price from $2.00 to $1.00. Stress — and make sure students understand — that a movement along a demand curve is called a change in the quantity demanded; a shift in position of the entire curve is called a change in demand. This distinction is vital.

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6. Explain the determinants of demand, i.e., the factors that cause a shift in demand. Some of the determinants of demand are:

   A change in consumer tastes. If a new study revealed that doughnuts are very nutritious, the demand for doughnuts probably would increase. If a new study said doughnuts are a harmful food, the demand for doughnuts would probably decrease.

   A change in income. If people earn more money, they may buy more doughnuts; if they earn less money, they may buy fewer.

   A change in the number of consumers.

   A change in the price of complementary goods. If the price of coffee increases, people may buy fewer doughnuts to eat with coffee because they drink less coffee. If the price of coffee goes down and people drink more coffee, they may also buy more doughnuts.

   A change in the price of substitute goods. If the price of cereal increases, people may eat more doughnuts for breakfast instead of cereal; if the price of cereal decreases they may eat fewer doughnuts for breakfast.

   A change in consumer expectations. If the price of doughnuts is expected to rise, people may buy more today than they would otherwise and freeze some of the doughnuts to eat later. They will then buy fewer doughnuts later. Consumer expectations may play a particularly important role in the demand for goods that cost a good deal — everything from major articles of clothing to automobiles. If consumers expect prices to go down because of seasonal changes or to make way for forthcoming new styles and models, consumers may delay purchasing the goods.

7. Distribute Handout 2-7-2. Go over the instructions with the students. Have them work individually or in small groups to complete the handout. If you stressed the determinants of demand, have the class do the optional exercise too.

8. Discuss the answers to the handout. (See answers following the closure activity.)

9. Project Visual 2-7-1 and ask the students to look at Handout 2-7-1 again. Now focus on the supply curves. Point out to the students that a movement of supply from curve S_1 to curve S_2 is an increase in supply for every given price. Such an increase is called a shift in supply. If supply were to shift from curve S_2 to curve S_1, there would also be a shift in supply, but this shift would indicate a decrease in supply.

10. Drive home to the students that an increase in the supply of doughnuts means that more doughnuts are supplied at every price. Ask questions such as these:

    A. What quantity of doughnuts is supplied at point A? (60) At point B? (70)

    B. What quantity is supplied at Point C? (40) At point D? (50)

    C. What quantity is supplied at point E? (30) At point F? (40)

    D. What conclusions can be drawn from these data? (On supply schedule S_2, 10 more doughnuts are supplied at every price compared to schedule S_1.)

11. Ask a student to draw a curve on the transparency to illustrate a decrease in supply from S_1. Have the student label the curve S_0. (Curve S_0 should be to the left of S_1.)

12. Ask the students whether a movement from point D to point B shows an increase in the supply of doughnuts.

    (No. It shows an increase in the quantity supplied, which was caused by an increase in price from $1.00 to $2.00. *Stress* — and make sure students understand — that a movement along a supply curve is called a change in the quantity supplied; a shift of the entire curve is called a change in supply. This distinction is vital.)

13. Explain the determinants of supply, i.e., the factors that cause a shift in supply. Some of the determinants of supply are:

    A change in the cost of production. Anything that increases production costs will shift the supply curve to the left, i.e., every quantity will cost more to produce and will bear a higher market price. Anything that decreases production costs will shift the supply curve to the right, i.e., every quantity will cost less to produce and will bear a lower market price. Thus, an increase in doughnut makers' wages or in the price of flour would cause a decrease in the supply of doughnuts at a given price, and a decline in wages or the price of flour would cause an increase in the supply of doughnuts at a given price.

    Improved technology. Technological advances in production raise productivity and increase supply. A new, more efficient doughnut cooker would increase the supply of doughnuts.

    Natural disasters and other events can cause decreases in production. Poor weather in wheat-growing areas would probably decrease the supply

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of doughtnuts. A strike by workers in doughnut factories could decrease supply — and in a major way if the strike went on for a long time.

Government policies — for example, a tax on doughnuts — would increase their cost and lead to a decrease in supply. Tariffs and quotas on imported doughnuts would decrease supply.

14. Distribute Handout 2-7-3. Go over the instructions. Have students work individually or in small groups to complete the handout. If you stressed the determinants of supply, be sure to have the class do the optional exercise.

15. Discuss the answers to Handout 2-7-3.

Closure

Read an item from a recent newspaper or magazine that illustrates increases or decreases in supply or demand. Refer explicitly to relevant economic principles in explaining briefly how each clipping illustrates an increase or decrease in supply or demand.

ANSWERS TO QUESTIONS IN HANDOUTS

Handout 2-7-2

1. increase, D
2. increase, E
3. decrease, D
4. decrease, C
5. no change, C
6. decrease, B
7. decrease, A
8. increase, B

Optional Bonus:
Consumer expectations - 1
Consumer tastes - 4, 8
Number of consumers - 2
Income - 6
Substitute - 3
Complement - 7

Handout 2-7-3

1. increase, D
2. increase, E
3. decrease, D
4. decrease, C
5. decrease, B
6. decrease, A
7. no change, A

Optional Bonus:
Change in the cost of production - 1,5
Change in technology - 2
Natural disaster/other event - 3,6
Government policies - 4

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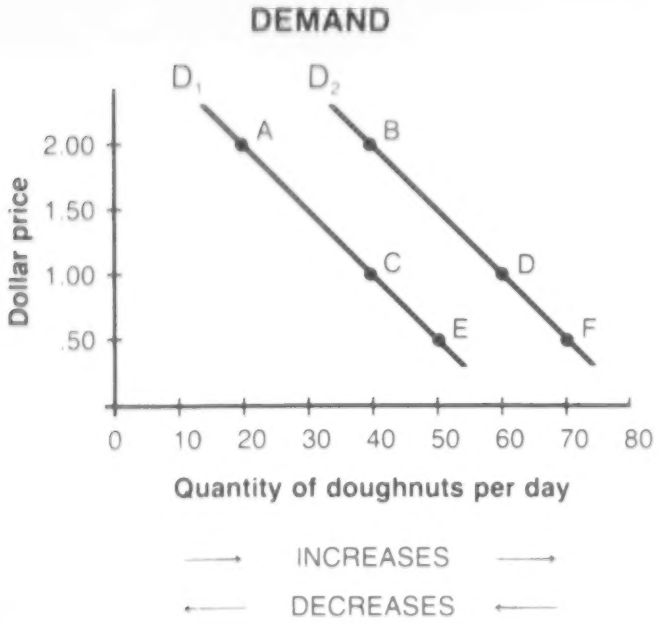
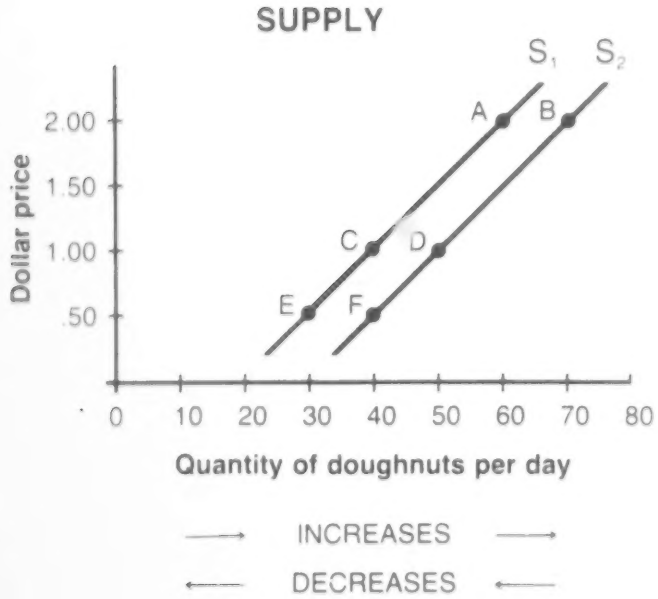
Visual 2-7-1
Shifts in Demand and Supply





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Unit 2
Lesson 8
When There Are Floors and Ceilings

Introduction

Economics Not all markets are allowed to function freely. The government may set some prices, and a price that is set may differ from the market clearing price. When a price is set by law (rule) at a different level than the market clearing price, a shortage or a surplus will occur. A shortage occurs when the legal price is lower than the market clearing price. A surplus occurs when the legal price is higher than the market clearing price.

Reasoning Laws setting prices do not change individuals' basic economizing behavior. People will continue to make their best choices as they respond to anticipated costs and benefits. But new rules (laws) may alter the number or the characteristics (perhaps both) of the available alternatives, and thus prompt consumers to make different choices than they would have made in the absence of such rules. By using economic reasoning, students should be able to predict the consequences that price-setting laws will have on people's choices.

Concepts

Markets
Prices
Incentives
Rationing
Supply
Demand
Exchange

Instructional Objectives

Students will

1. Define price ceilings and price floors.
2. Analyze the effects of price controls on competitive markets.
3. Describe the consequences of price controls in terms of surpluses and shortages.
4. Describe and evaluate the arguments for and against price controls.

Lesson Description

In this lesson, students use supply and demand analysis to investigate the consequences of price controls in markets for wheat, football tickets, labor, and apartment rentals. This lesson should be used only after students understand supply and demand analysis and have already used graphs to illustrate supply/demand changes in markets.

Time Required

Two class periods

Materials

One copy for each student: Handout 2-8-1, 2-8-2, 2-8-3, and 2-8-4.
A transparency of Visual 2-8-1.

Procedure

1. Explain to the class that not all markets are allowed to function freely. The purpose of this lesson is to learn how government actions can cause shortages and surpluses. Distribute Handout 2-8-1. Have the students examine the graph and answer the questions.

2. Project Visual 2-8-1 and ask the following questions:

   A. In a competitive market, how much would be exchanged and at what price?

      (120 units at $50)

   B. How would this price and quantity be established?

      (Review the equilibrium price concept found in Lesson 2-5.)

   C. What would occur if government regulations set the price at a maximum of $30?

      (A quantity of 160 would be demanded while a quantity of 60 would be supplied. There would be a shortage of 100 units.)

   D. Why would this shortage occur?

      (The imposed reduction in price is below the equilibrium price. At the reduced price, sellers would be willing to supply only 60 units, but the quantity demanded would rise to 160 units.)

   E. What would happen if government regulations set the price at a minimum of $80?

      (A quantity of 60 would be demanded while a

Adapted from *Teaching Strategies: High School Economics Courses*. National Council on Economic Education, 1985.

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quantity of 200 would be supplied. There would be a surplus of 140 units.)

F. Why would this surplus occur?

(Mandating a price above the equilibrium price decreases the quantity demanded and increases the quantity supplied.)

3. Tell students that an administered minimum price is called a "price floor" and is set in order to increase the price at which transactions take place. That is, the "free market" price is lower than the floor price. An administered maximum price is called a "price ceiling" and is set in order to decrease the price at which transactions take place. That is, the "free market" price is higher than the ceiling price. Point out the price ceiling and the price floor mentioned in Procedure 2 above, on the transparency of Visual 2-8-1. You might ask a student to point out which line is the price floor and which line is the price ceiling.

4. Give the students examples of actual ceilings and floors. Examples of price ceilings include control of natural gas prices and rent controls. Examples of price floors include minimum wage legislation and farm price supports.

5. Optional. If you played the Wheat Game, you could illustrate the foregoing concepts as follows:

   Replay one round of the wheat simulation in Lesson 2-2 but with a $3.90 maximum price. Afterward, discuss with the students some of the differences in the game this time. Did they make as many transactions as before? Did buyers and sellers do better or worse than before? Did anyone cheat by buying or selling above the maximum price?

   Display the wheat simulation graph showing the supply and demand curves established by the seller and buyer cards. Draw a line across the graph horizontally from the $3.90 maximum price. Ask students to read the graph to determine how much wheat buyers will purchase at that price and how much sellers will offer at that price. Discuss what is meant by the term shortage in this context. Ask the students how the available wheat might be allocated to purchasers.

   Draw a horizontal line across the graph, starting at a price above the market clearing price, say $4.70. Ask the students how much wheat would be produced at this price and how much buyers would purchase. Discuss what the term "surplus" means in this context.

   Define price floor (legislated or regulated minimum price below which transactions are prohibited) and price ceiling (legislated or regulated maximum price above which transactions are prohibited).

6. Distribute a copy of Handout 2-8-2 to each student. Have the students answer the questions.

7. Discuss the answers to the questions. Students should be able to argue about alternative solutions to the problem, referring to economic principles in defense of their contentions.

8. Give a copy of Handout 2-8-3 to each student. Have students work in groups to answer the questions. You may then have each group make a report to the class. (Alternatively, students may work alone to complete one handout. Then have some of them report to the class.) In this exercise students use the decision-making model to analyze the economic issue of minimum wages.

9. Distribute a copy of Handout 2-8-4 to each student. Have students answer the questions. If you used small groups for Handout 2-8-3, you may want to have the students work alone to complete Handout 2-8-4; you then can use the handout as independent practice.

10. Discuss the economic issues concerning rent controls. Have the students go through the steps of the decision-making model as outlined in the answer key.

Closure

Divide the class into groups of 3-4 students. Each group should assume that it is an economic consulting team whose services people desire because of the excellent work it has done solving problems by use of principles from the *Handy Dandy Guide* to economic reasoning.

The problem in this case is a shortage of parking space at I.O.U., the local university. The parking lots at I.O.U. are too small to handle the cars of all the students and faculty members who want to park there. The annual fee for parking in an I.O.U. lot is $25.00.

Each group should decide on a solution to the I.O.U. parking problem. Before settling on a solution, group members should discuss a range of alternative possibilities. In analyzing these possibilities, group members should bear in mind the procedures they have used to analyze other problems brought up in this unit.

ANSWERS TO QUESTIONS IN HANDOUTS

Handout 2-8-1

1. What is the market price?

   ($50)

2. What quantity is demanded and what quantity is supplied at the market price?

   (Quantity demanded = 120; quantity supplied = 120.)

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3. What quantity is demanded and what quantity is supplied if the government passes a law requiring the price to be $30?

   (Quantity demanded = 160; quantity supplied = 60.)

4. What quantity would be demanded and what quantity would be supplied if the government passes a law requiring the price to be $80?

   (Quantity demanded = 60; quantity supplied = 200.)

Handout 2-8-2

1. Answer these questions on the basis of the information in the graph.

   A. Why is the supply curve a vertical line?

      (There are a fixed number of seats in the stadium. More cannot be created even if the price were set higher. NOTE: A student may suggest that bleachers could be set up somewhere, but rule this out as impossible.)

   B. How many tickets are available at the university's price?

      (90,000.)

   C. How many tickets do football fans wish to buy at the university's price?

      (125,000)

   D. What is the problem with respect to quantities supplied and demanded?

      (Quantity demanded is greater than quantity supplied. There is a shortage of tickets.)

   E. Does the graph illustrate a price floor or a price ceiling?

      (Ceiling.)

2. What are some means of eliminating the shortage of tickets in order to prevent "black marketing" or "scalping?"

   (Possible suggestions of means of eliminating the shortage of tickets are given in answers 2a to 2f below, but note that only answers 2a and 2e will alleviate the shortage. The others will only shift the effects of the shortage from one group or person to another.)

   A. Raise the price to $120 per season.

   B. Hold a lottery.

   C. Sell some people tickets for only some games.

   D. Give preference to students and alumni.

   E. Lose a lot of football games: fewer people will want to see the game, which is equivalent to a shift in demand to the left (i.e, a decrease in demand).

   F. Sell the tickets on a first come, first served basis.

3. For each solution you put forward, answer the following questions. (Answers to the questions will vary.)

   A. Will the solution eliminate the shortage?

   B. Is the solution fair?

   C. Who benefits from the solution? Who loses?

   D. What is the best solution?

Handout 2-8-3

1. What is the issue?

   (The issue is whether to increase the minimum wage.)

2. Draw a supply and demand graph that illustrates the situation when a minimum wage is involved. Does the situation involve a price floor, a price ceiling, or neither?

   (A price floor.)

3. What broad social goals should you consider as you decide how to vote on this issue?

   (Some relevant broad social goals are full employment for teenagers, full employment for others, economic freedom, economic fairness, and economic equity.)

4. What are some alternative means of achieving these goals?

   (Some alternatives are: raise the minimum wage, keep the minimum wage the same, eliminate the minimum wage, eliminate the minimum wage for teenagers.)

5. What are some advantages and disadvantages of each alternative? Be sure to consider who gains and who loses by each alternative.

   (Minimum wages affect labor markets only when the mandated minimum wage is above the equilibrium wage. When the minimum wage is above the equilibrium wage, more people will want to work, and employers will want to hire fewer workers. This causes unemployment. You can illustrate this with a supply and demand graph. Under these circum-

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stances, teenage unemployment increases the most because employers prefer more skilled adult labor to less skilled teen labor when the price of each is the same or the price differential between the two types of labor is small. In general the minimum wage tends to make the broad social goal of full employment more difficult to meet. According to those who support it, the minimum wage reduces freedom but promotes fairness and equity.)

6. Would you vote to raise the minimum wage?

(People who anticipate they can get a job will probably favor raising the minimum wage. People who anticipate the higher minimum wage will prevent them from getting a job will probably oppose it.)

Handout 2-8-4

1. What is the issue?

(The issue is whether the voters should pass a rent control measure that will freeze rents at the level of two years ago.)

2. Draw a supply and demand graph that illustrates the situation when rent control is involved. Does the situation involve a price floor, a price ceiling, or neither?

(A price ceiling.)

3. What broad social goals should you consider when you decide how to vote?

(The broad social goals in this situation are economic equity and economic freedom.)

4. What are some alternative ways of achieving these goals?

(The alternatives are to pass a rent control ordinance or to allow market forces to determine rents.)

5. What are the advantages and disadvantages of each alternative? Be sure to consider who gains and who loses with each alternative.

(The argument for rent control is that it makes adequate housing more affordable for some low-income people and thus promotes economic equity. Opponents argue that rent control causes housing shortages. Forcing rents below their equilibium level increases the quantity of housing demanded and decreases the quantity supplied: more people want to rent apartments and fewer apartments will be offered for rent. Opponents also argue that rent controls limit economic freedom. Finally, they claim that if the market doesn't ration housing, other rationing methods will appear: apartments will be divided up, extra fees charged, and maintenance deferred — thus controls act to limit economic equity.)

6. How would you vote on this issue?

(Encourage students to support their opinions with economic analysis.)

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Visual 2-8-1
Price Floors and Ceilings

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Unit 2
Lesson 9
Become a "Profit-Making Prophet" by Using the Market

Introduction

Economics Supply and demand curves are tools used to predict human behavior in markets. As changes occur in markets, the consequences can be anticipated if the insight gained by analysis of supply and demand is used accurately. In this lesson, students practice using complex supply/demand analysis in a variety of settings.

Reasoning Lesson 9 calls for sophisticated reasoning. Students may use all the key assumptions introduced so far to deal with the problems presented here.

Concepts

Choice
Determinants of supply and demand
Price
Incentives
Elasticity
Opportunity cost
Marketing clearing price
Supply
Demand

Instructional Objectives

Students will

1. Explain how an increase in demand will change the market clearing price and quantity.
2. Explain how an increase or decrease in supply will change the market clearing price and quantity.
3. Explain how these changes influence the economizing behavior of producers and consumers.

Lesson Description

This lesson incorporates all the major ideas introduced in the preceding lessons of Unit 2 and requires students to practice supply and demand analysis by focusing on several examples of market changes, exploring the consequences of change by using supply-demand analysis accurately.

Time Required

Two class periods

Materials

A transparency of Visual 2-9-1.
One copy for each student: Handout 2-9-1, 2-9-2, 2-9-3, and 2-9-4.

Procedure

1. Explain to the students that they will now practice using supply and demand analysis to predict the effects on the market of changes in prices and quantities.
2. Help the students review the concepts of *demand, supply, price, market clearing price, elasticity, opportunity cost, determinants of supply and demand, incentives* by using a college quiz bowl format. Each question should have three parts: the definition, an explanation of the definition, and at least one example. Here is an illustration:

   Concept: Elasticity of demand

   A. Definition: The strength of the relationship between a change in price and the resulting change in the quantity demanded.

   B. Explanation of definition: Products with an inelastic demand have few substitutes, and the amounts consumers purchase change only slightly when prices change. Fuel oil and cigarettes have an inelastic demand.

   C. Example: People do not significantly change their heating oil purchases during the winter if prices increase or decrease sharply.

3. Distribute Handout 2-9-1 to the class and display Visual 2-9-1 on the screen, and review each principle as it relates to human behavior. Ask students to use these principles as guidelines to help them understand changing markets.
4. Distribute Handout 2-9-2. Ask the students to complete the tasks described on the handouts and to use the *Handy Dandy Guide* (*HDG*) to help arrive at the answers. Discuss their responses with the class.
5. Distribute Handout 2-9-3. This assignment asks the students to find news articles which illustrate changes in demand or supply. The Handout includes a completed sample for the students to examine. Ask the students to work in small groups using the school library to find news articles to examine.

Closure

Ask the students to complete Handout 2-9-4. Divide them into groups of 3-5 and have them review each other's work and assess their accuracy.

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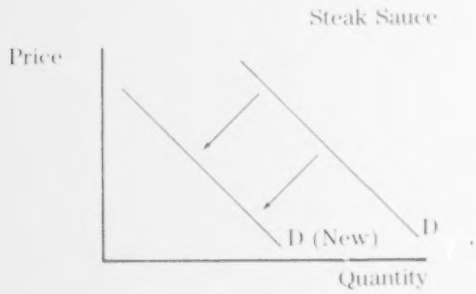
Answers for Handout 2-9-2

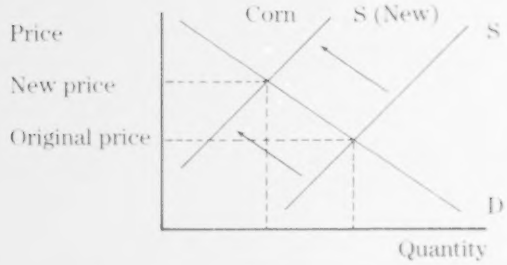
1. Greater: At $2.00 per dozen suppliers have the incentive to employ more resources in doughnut production. Even if the additional resources are more costly (as is often the case) the additional dollar of revenue per dozen doughnuts will more than compensate for the higher costs.

2. People decide to buy products when the benefits exceed the costs. Costs include the next best purchase option. As prices for one product fall, they become cheaper relative to other options, and the decision is made to consume more or to consume for the first time.

3. Steak sauce is a complementary good for steaks. If the quantity of steaks people buy decreases due to a price increase, the demand for its complement (steak sauce) will fall.



4.



Less corn will be purchased by consumers. People will choose to substitute cheaper products or go without.

5. Because the cost of steel is assumed to be a significant factor of auto production, the supply of automobiles will decrease.

6. Because records and cassettes are complements to stereo equipment, a price increase for equipment will reduce the demand for records and cassettes.

7. The relative abundance of water coupled with the low satisfaction derived from the last unit consumed keeps prices down. Petroleum on the other hand is more scarce and the consumer experiences higher satisfaction from the last unit consumed.

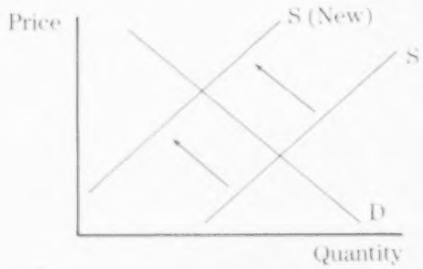
8. Raise the price.

Answers Key for Handout 2-9-4

1. a. decrease in demand
   b. change in taste/preference
   c.

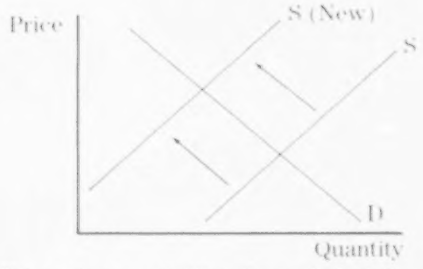
   d. Price falls, quantity demanded falls, quantity supplied falls.

2. a. decrease in supply
   b. change in # of sellers
   c.



   d. Price rises, quantity demanded falls, quantity supplied falls.

3. a. decrease in supply
   b. self-imposed restriction
   c.



   d. Price rises, quantity demanded falls, quantity supplied falls.

   Consumers may substitute U.S. produced cars for foreign imports.

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Visual 2-9-1
Handy Dandy Guide (HDG)

1. People economize.
   What choice is being made?
   Who is making the choice?

2. All choices involve costs.
   What were the alternatives?
   What is being refused?

3. People respond to incentives in predictable ways.
   What are the potential benefits?
   What are the potential costs?
   Have they changed?

4. Economic systems influence individual choices and incentives.
   Have choices made by others influenced the individuals in the situation?
   What are the rules of the system?
   Have the rules changed?

5. Voluntary trade creates wealth
   Why is exchange taking place or not taking place?
   How do these choices influence trade and exchange?

6. The consequences of choice lie in the future
   What costs and benefits do you foresee?
   How uncertain and risky is the choice being made?

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Unit 2
Lesson 10
Rationing Kidney Transplants: An Ethical Problem

Introduction

Economics This lesson uses the example of kidney transplants to provide students with additional practice in applying their decision making skills. It stresses difficult decisions related to handling scarcity. More people require kidney transplants than can be provided, given the limited number of donated kidneys. Students consider alternative methods for rationing organ transplants and evaluate how each method influences the relative scarcity of the resource.

Reasoning Economic reasoning can help students to explain human actions and anticipate the consequences of policies in emotionally and ethically charged issues just as it helps with the analysis of ethically simpler issues, such as car sales. In most hospitals, doctors and advisory boards establish the criteria for allocating the available organs. These criteria may include age, potential match to avoid the body's rejection, ability to pay, and citizenship. Students should see this issue as yet another example of rationing a scarce resource; they also should see that different rationing methods establish incentives which encourage potential patients to behave in a manner which may enhance their chances of obtaining the operation.

Concepts

Scarcity
Rationing
Incentives
Trade restrictions

Instructional Objectives

Students will

1. Explain the consequences of a non-market rationing process.
2. Evaluate the consequences of restricting organ transplants to U.S. citizens.
3. Suggest alternative policies to reduce the scarcity of organs for transplant.

Lesson Description

Students practice their decision making skills by developing various methods of rationing kidneys. They analyze the effect of various government policies on the incentive structure that affects people's decisions.

Time Required: One class period

Adapted from *Teaching Strategies for International Trade*. National Council on Economic Education, 1988.

Materials

One copy for each student: Handout 2-10-1 and 2-10-2.

Procedure

1. Explain that the purpose of this lesson is for the students to extend their decision making skills by discussing a difficult contemporary issue.
2. Divide the class into small groups.
3. Distribute Handout 2-10-1 and ask each student to read the first paragraph.
4. Explain that each group should decide which patient should receive the kidney transplant; each group also should explain the criteria it used to make its decision. If a group chooses a patient unable to pay the full cost of the operation, that group should explain how the hospital will cover the remaining costs.
5. Have each group state its choice and record these answers on the chalkboard.
6. Reconvene. Discuss each small group decision by asking the following questions:

   A. Why did some groups choose different patients to receive the kidney transplants?

   (Students give different priorities to the patients' characteristics. Their criteria probably will reflect different values, religious backgrounds, and other important influences in the students' lives. It would be unusual for everyone to agree on this issue unless there were enough kidneys for every patient.)

   B. What economic principles apply in this situation to help us understand the problem?

   (Scarcity forces people to choose among alternative ways to use limited resources. Scarcity forces people to set up a rationing scheme to distribute limited goods and services.)

   C. If potential patients knew what your critereia were for choosing a transplant recipient, how might they change their qualifications for the operations?

   (These answers may take some imagination,

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but a few ideas might be: If students used an age criterion, each potential patient might emphasize the positive effect he or she would have on young lives; criterion of paying customer — raise money through work, insurance, contributions, loans, promises to pay in the future; criterion of public service contribution — emphasize the public service each does or is likely to do in the future. Emphasize that people respond to incentives to qualify for limited goods and services.)

7. At this point provide students with the following information: "During the last year 300 foreign nationals received kidney transplants in U.S. hospitals — ten percent of all transplants performed —even though there are 10,000 Americans waiting for kidney transplants. Another 200 to 250 kidneys were exported for transplants at foreign hospitals. In addition, a large, illegal, world market for human organs is growing. Illegal commerce in transplant organs is becoming a big business."

8. Ask students if they think these two developments, exporting organs and illegal commerce, constitute a problem. If they think it does, what might be done about it? Don't come to conclusions. Just let students express their initial reactions.

9. Distribute Handout 2-10-2 and ask students to answer the questions as a group project.

10. Discuss the handout by asking the following questions:

    A. Does "need" serve as a useful criterion for decisions on organ transplants?

    (No, all patients can make a good case that they need the operation. Each life is threatened if the operation does not take place.)

    B. How might a law requiring demonstrated "need" set up incentives for patients to appear more poor or to become poor?

    (If money or wealth prevents you from obtaining a life saving transplant, most patients will reduce their weaith or hide it.)

    C. Would an "Americans First" policy influence the decisions of doctors?

    (Yes, but they might not feel that the best health-related criterion was being followed.)

    D. How would an "Americans First" policy change patient incentives?

    (Foreign nationals requiring a transplant operation would make every effort to obtain U.S. citizenship or to obtain an illegal organ transplant if none were available in their own country.)

    E. Is an "Americans First" policy on kidney transplants different from other trade restriction laws?

    (Such a policy would be very similar to restrictions on the sale of other, less controversial goods and services.)

    F. Would an open market for organ transplants change the current situation for rationing kidney transplants?

    (Yes, the quantity demanded would decline as the price rose, and the quantity supplied would increase. In the long run the supply of donated organs might increase.)

    G. Why would many people oppose a market rationing plan for organ transplants?

    (Many people are not convinced that such a plan would increase the quantity supplied, or they may believe that purchasing power is not the best criterion for deciding who should receive life-saving operations. Serious ethical questions are raised with such a policy. Unfortunately, any other policy also will also raise serious ethical conflicts.)

    H. Do non-market rationing programs correct the problem and provide equal treatment to everyone?

    (No, because scarcity still exists and kidney transplants will be allocated according to other, equally arbitrary rules regarding recipient qualifications. Discrimination will exist depending upon the criteria used to allocate scarce organs.)

Closure

Remind the students that understanding economic reasoning should help them to analyze difficult ethical problems like this one.

A. What is the main problem in this case?

(While there are many issues, the main problem is scarcity.)

B. What do you believe is the best way to handle this problem?

(Answers will vary but encourage the students to apply economic reasoning to explain their decision.)

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Sample Test Items

Unit 2 Supply and Demand

1. Imagine these scenes. Yesterday you walked past a large department store with very few customers. Today you noticed that the same store has a large "Sale" sign in the window and many customers are buying huge quantities of merchandise. This is an example of what economic principle?

   A. Strength.

   B. The law of supply.

   C. An externality.

   *D. The law of demand.

2. Products or services that have uses similar to those of other goods or services are called:

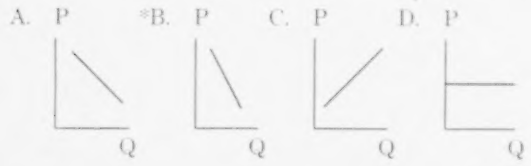
   *A. Substitutes.

   B. Complements.

   C. Cheap.

   D. Inferior.

3. Imagine you own a company which manufactures *Erase*, a skin cream lotion that makes facial wrinkles disappear. Which of the following graphs would accurately depict the demand for your product?



4. The term "economizing" suggests that people will exhibit all of the following behaviors except:

   A. A weighing of future costs and future benefits.

   B. Maximizing satisfaction.

   C. Searching for viable alternatives.

   *D. Basing their decisions on last week's costs.

5. Sometimes farmers decide to destroy a crop by plowing it under because the cost of harvesting the crop is greater than the revenue to be gained from the sale. Economic analysis would describe this decision as:

   *A. Marginal.

   B. A sunk cost.

   C. Stupid.

   D. Inefficient.

6. The market clearing price is best described as:

   A. The price which is too high for the average consumer.

   *B. The price that equates the quantities suppliers and demanders are willing and able to buy and sell.

   C. A low price that clears the market of goods and services so rapidly that many consumers cannot purchase the items they are willing and able to pay for.

   D. The price the rich want to pay.

7. When a product like insulin (a drug to help people with diabetes) has few substitutes and is considered very important to one's life, the public's demand for the product is described as:

   A. Elastic.

   B. Delastic.

   *C. Inelastic.

   D. Bombastic.

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8. In a market economy, prices are established by:

   *A. Producers and consumers as they make economizing choices.

   B. Producers when they make economizing choices.

   C. Consumers when they make economizing choices.

   D. Government officials when they make economizing choices.

9. What economic principle best explains the following paradox? At a birthday party, a person who loves chocolate cake and who ate three pieces of cake earlier in the party, turns down the opportunity to eat the last piece of chocolate cake.

   A. Fear of embarrassment is a stronger motive than personal self-indulgence.

   *B. Diminishing marginal utility makes additional cake less satisfying.

   C. "Weight-watcher's guilt" becomes stronger after two pieces of cake.

   D. Nothing is free.

10. Assume that the price of rental apartments is set by law below the market clearing price. In this case, the assumption that people economize would help predict all the following consequences except:

    A. Landlords will not keep the apartments maintained as well as they did before the rent prices were set by the law.

    B. A shortage of rental apartments will develop.

    C. Renters will pay more for related apartment services (not covered by rent payments) after rent prices are set by the law.

    *D. Apartments will be built at an increasing rate.

Sample Essay Questions: Conversations About Economics

The following are essay questions for Unit 2. Students should evaluate the arguments of each speaker. They should answer the question: Is the speaker thinking economically or non-economically? Why?

I. California Dreaming
Rob Wilson I see Californians have finally done something about auto insurance rates. They voted to roll back rates by 20%. That'll teach those insurance companies a lesson.

Nate Davis I hear some insurance companies are going to pull out of California. They claim they're losing money because of large claims. It's the same logic they use to justify the rates for teenage guys. They have more claims so they pay higher rates.

Bruce Raddatz That's the kind of logic that the people voted against. Why should I pay high rates when I have never had an accident? There's no logic in rate-setting. Insurance companies do whatever they want. I can't wait until other states pass laws to roll back auto insurance rates. Then the companies will have no place to hide.

II. What's in a Price?
Tammy Jo Baker Prices make no sense at all. When Christmas cards are in season, their price goes up. When fruits and vegetables are in season, their price goes down. What gives?

Angela Bell I can't believe the price of clothes this year. The prices on all the top labels are up. I thought people were supposed to buy less when the price goes up. Economics makes no sense.

Lori Miller Economics makes sense. An increase in demand increases price. The higher price increases quantity supplied. The higher supply decreases price so the price goes back to its original level. The prices of the top labels will come down pretty soon.

III. A Living Wage
Terry Olivi The $3.25 per hour minimum wage has helped a lot of low-paid workers over the years.

Ben Kim Yeah, but it's too low now. Who can live on $3.35 an hour? I make more than that working part-time at the Burger Express.

Jeanne Martire I couldn't agree more. Let's double the minimum wage to $6.70 an hour. It's a good way to fight poverty.

Linda Roberts Not so fast. What if a business can't afford to pay higher wages? It could replace workers with machines or even close down. I think the minimum wage might be a *cause* of poverty.

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Unit 2:
Answers for Teachers and Discussion Points on Sample Essay Questions

I. California Dreaming

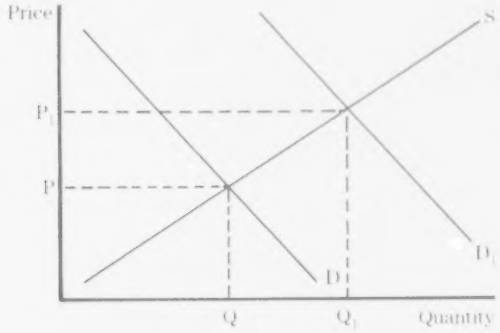
This situation illustrates the effects of a price ceiling. As long as insurance companies are competitive, the equilibrium price of auto insurance will be determined by supply and demand. If California mandates a price ceiling 20% below equilibrium, insurers will leave the market. The quantity demanded for insurance will increase while the quantity supplied will decrease. It will be tough to get auto insurance in California.

Rob Wilson and Bruce Raddatz show little understanding of economic principles. Nate Davis's position is closer to the truth.

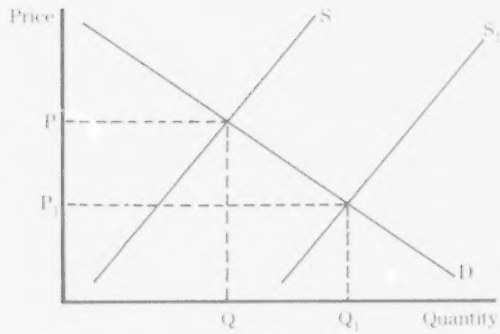
II. What's in a Price?

All 3 people have misinterpreted the laws of supply and demand. This case shows that the laws of supply and demand are not as simple as they may appear.

Tammy Jo Baker needs to know that the price of Christmas cards increases because of an increase in demand. The price of fresh fruit and vegetables goes down in season because of an increase in supply. In both situations, the quantity purchased increases. This can be illustrated graphically as follows:

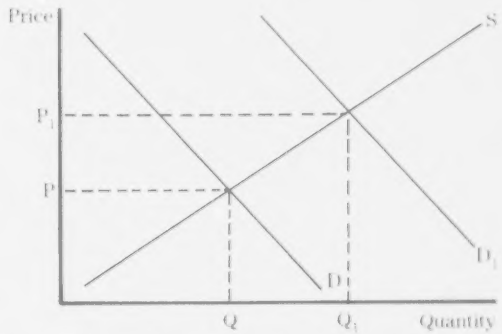


Christmas Cards



Fruits and Vegetables

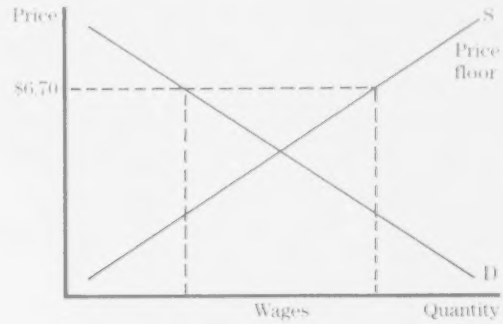
Angela Bell confused a change in demand with a change in quantity demanded. The price of the top clothing labels increases because of an increase in demand. The situation is illustrated as follows:



Lori Miller made the same mistake as Angela. An increase in demand increases price and quantity supplied. The reason producers produce more is that the price is higher. There has not been a change in underlying conditions that caused a greater quantity to be supplied at every price. That would cause the price to decline.

III. A Living Wage

This case illustrates the effects of a price floor. A minimum wage is a price floor set above the equilibrium wage. It is illustrated like this:



Less people will be employed at the higher minimum wage. In fact, the $3.35 minimum wage may have little effect because it may not be higher than the market wage. Doubling it could cause unemployment. It would be the lower skilled workers who would be most likely to be unemployed. Only Linda Roberts has a correct perspective on the issue.

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Unit 3
Producers and Consumers

	Letter to the *Capstone* Teacher
Lesson 1	Introduction to Consumers and Producers
Lesson 2	Consumers Make Marginal Decisions
Lesson 3	Living at the Margin
Lesson 4	Consumers and Producers Face Sunk Costs
Lesson 5	Why do Some People Earn More Money Than Others?
Lesson 6	Productivity
Lesson 7	When There Isn't Pure Competition
Lesson 8	Labor and Management Negotiate
Test	Sample Test Items

"Economic choices are made in the present with an eye fixed firmly on future consequences."

Unit 3
Letter to the *Capstone* Teacher

Dear *Capstone* Teacher:

Consumers and producers interact in the product markets and in the factor markets. Producers sell goods and services to consumers in the product markets. They can sell these goods and services only because consumers sold factors of production (land, labor, capital) in the factor markets. This circular flow of income illustrates the interdependence of our world. Economic policies are rarely good only for business or only for consumers. A buyer in the product markets is a seller in the factor markets.

Like the other units in *Capstone*, Unit 3 begins with a letter for the students and a quiz on economic reasoning. The following paragraphs explain the statements in the student quiz.

Statement 1, "If you spend $3000 on car repairs and the car still doesn't work properly, you should forget about the $3000 when making a decision on whether to spend another $1000 on repairs," is true. Marginal analysis and sunk costs are two of the most important concepts in economics. In the case of the car, the $3000 already spent is a sunk cost. To an economist, sunk costs are irrelevant. Once you incur the cost, the opportunity to spend that money somewhere else disappears. For example, a business that builds a plant should no longer consider the cost of that plant when making production decisions. It has already committed its money and borne the opportunity cost.

If sunk costs are ignored, how are decisions made? They are made at the margin. Marginal costs are future costs. Marginal analysis forces people to make decisions based on future expectations. In our car repair example, the marginal cost of fixing the car is $1000. If the owner expects a marginal return of over $1000, he or she should decide to have the repairs made.

Statement 2, "Because businesses can price their products at any level, they always charge consumers the highest price," is false. Businesses charge the price which will produce the greatest profit. If prices are too high, consumers will not buy the product.

Under perfectly competitive conditions, that price will only cover explicit and implicit costs in the long run. Under monopoly conditions, the business charges a higher price and produces a lower output than it would under competitive conditions. Nevertheless, monopolists don't have consumers at their mercy. If the price is too high, consumers will stop buying the product. That is why statement 3, "Monopolists charge the highest possible price because they have consumers at their mercy," is false.

Statement 4, "Middlemen and speculators increase the price of things while performing few services for consumers," is false. The much maligned middlemen provide market information, which is a scarce good. People can sell a house without a real-estate agent and buy food from a farmer. The fact that many people use middlemen indicates that they believe the benefits of dealing with a middleman outweigh the costs.

A speculator is a person who makes a decision in the absence of complete information about the consequences of that future event. Economist Paul Heyne states:

> People who think they know more than others about the relationship between present and future scarcities will want to buy in one time period for sale in the other. If they are correct, they make a profit on their superior insight and also transport goods through time from periods of lesser to greater scarcity. If they're wrong in their predictions, they perversely move goods from periods of greater to lesser scarcity and suffer the penalty of a personal loss on their transactions. (Heyne, 1980, p. 135)

Statement 5, "If the productivity of labor (output per worker) increases, the nation's standard of living increases," is true. This is one of the most important concepts in economics. If a nation's productivity declines, its people's material well-being declines. During the past ten years, growth in U.S. productivity has trailed many other countries. (*Wall Street Journal*, October 24, 1988, p. 1):

U.S.	+ 7%
Canada	+10%
Germany	+18%
France	+23%
Japan	+35%
Korea	+63%

Changing this trend in U.S. productivity would require improved physical capital or more human capital.

Sincerely,

The *Capstone* Authors

Sources

Heyne, P. *The Economic Way of Thinking*, Chicago: Science Research Associates, 1980.

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Unit 3
Lesson 1
Introduction to Consumers and Producers

Introduction

Economics This lesson introduces students to marginal analysis.

Reasoning Consumers and producers make decisions at the margin. They weigh *additional* benefits against *additional* costs. When consumers and producers make decisions, they are looking toward the future. The consequences of choices lie in the future. In this lesson students use principles of economic reasoning to practice making decisions at the margin.

Concepts

Producers
Consumers
Decision making
Marginal costs and benefits

Instructional Objectives

Students will

1. Identify marginal decisions made by producers and consumers.

2. Recognize that consequences of choices are in the future.

Lesson Description

Based on handouts and class discussion, students are introduced to key ideas that will be stressed throughout this unit.

Time Required One class period

Materials

One copy for each student: Handout 3-1-1 and 3-1-2.

Procedure

1. Tell the students that over the next few days they will study how consumers and producers make decisions. Explain that sometimes people make decisions that seem surprising. However, using economic reasoning can help one to understand many decisions.

2. Tell the class: Dominic, aged 17, paid $2000 for a used car with 90,000 miles on it. All he wanted was an old "beater" to get back and forth from his job. He drove the car very hard and didn't take good care of it. After driving it for only two months and 190 miles, he discovered that the transmission was gone and the engine was burning a quart of oil per day. His mother said that the garage floor looked like the bottom of an oil drilling rig. Ask one question: How much is Dominic's car worth?

   (Encourage students to make many responses. List their ideas on the board. Encourage the students to remember an old lesson of economic reasoning: the consequences of choices all lie in the future. The current value of the car has little to do with what was paid, how many miles were driven, or how the car was used. What is important *now* is how much others are willing to pay for a used car with 90,190 miles, a ruined transmission and an engine without much compression.)

3. Explain to the class that producers also make decisions. In light of this, would an owner of a company continue to hire more employees as long as it resulted in increasing production?

   (No. Producers would continue to hire extra workers only as long as the increased benefit was greater than the additional cost.)

4. Distribute Handout 3-1-1. Discuss the Letter to *Capstone* students with the class.

Closure

Distribute Handout 3-1-2. Ask the students to take the quiz. (The correct answers are explained in the Letter to the *Capstone* Teacher for Unit 3.) Encourage the students to offer reasons about their responses in each case.

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Unit 3
Lesson 2
Consumers Make Marginal Decisions

Introduction

Economics Marginal analysis is very important in the study of economics. "Marginal" means the next, additional, or incremental choices and actions.

Reasoning Making choices at the margin involves sophisticated economic reasoning. Distinguishing between total, average, and marginal measurements helps decision makers to assess the consequences of any decision more accurately. It also forces decision makers to keep the future in mind, not the past, as they make choices.

Concepts

Decision making
Cost benefit analysis
Marginalism

Instructional Objectives

Students will
1. Identify decisions made using marginal analysis.

2. Practice making decisions using marginal analysis.

Lesson Description

This lesson reviews the point that students are actors in the economy, particularly in their role as consumers. Through a handout and class discussion, students are introduced to doing a simplified form of marginal analysis.

Time Required One class period

Materials

One copy for each student: Handout 3-2-1.

Procedure

1. Explain that the purpose of today's lesson is to sharpen students' decision making skills and to help them practice economic reasoning.

2. Remind the class that we all are active participants in the economy. Ask: What are some of the economic roles that you perform in the economy? The students will probably suggest such roles as consumer, worker, and saver. List these on the board.

3. Explain that one fundamental economic role we all perform is that of consumer. A valuable skill for consumers is to learn to make good decisions. In this lesson, students will learn that most consumer decisions are marginal decisions.

4. Distribute Handout 3-2-1 to the class. Read "What is Marginal Analysis?" and "Facing the Facts of Finals Week" to the class. Ask the students to circle their answer to the Quiz question and discuss why this was a marginal decision. Stress the idea that Maggie was weighing additional costs (being with her friends) against additional benefits (getting a good grade).

5. Distribute Handout 3-2-2. Ask the students to read "Fred Fisher Buys a Fishing Boat." Ask them to answer the Quiz question. Again, discuss why this is an example of marginal analysis.

6. Distribute Handout 3-2-3. Ask the class to read "The Andersons go to London." Ask the students to work in pairs to write their explanations of the Andersons' decisions. Encourage the students to use the words "additional cost" and "additional benefit" in their explanation.

7. Discuss the students' explanation of the marginal decision facing the Andersons. Their explanations should stress that the additional benefit of a first-class hotel, seeing London shows, and having all their meals provided was not worth the additional cost of $3000. Perhaps the Andersons were not theatre fans or perhaps they felt that, with a little extra effort, they could get tickets to plays in a less expensive way. In other words, the additional benefits of the convenience of a great hotel, all meals provided, and theatre tickets were not worth the additional cost — $3000.

8. Discuss the students' responses to the last question on Handout 3-2-3. Encourage them to mention that for the Andersons to change their decision, they would need to make some reassessment of the increased costs and benefits. For example, the Andersons may have found that London theatre tickets were nearly impossible to obtain. If they valued those tickets highly, they might have changed their decision.

Closure

Review with the class the idea of making marginal decisions. Remind the group that most consumer decisions we make are not all or nothing propositions. Usually, it is a matter of assessing the increased costs and the increased benefits of each incremental alternative.

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Unit 3
Lesson 3
Living at the Margin

Introduction

Economics Marginalism is an important concept useful in personal and social decision-making. Choices rarely are all-or-nothing propositions; usually they concern incremental changes. Should a firm produce a few more or a few less units of output? Should a consumer buy a bit more of this and a bit less of that? Is the marginal or additional value produced by hiring more workers equal to or greater than the additional cost of hiring those workers? This lesson applies the concept of marginalism to several different situations.

Reasoning Producers, like consumers, make choices. This lesson requires students to use economic reasoning to understand producers' marginal analysis.

Concepts

Choice
Marginal Cost
Marginal Revenue

Instructional Objectives

Students will

1. Apply marginal analysis in economic decision making.
2. List several personal and government problems to which marginal analysis might be applicable.
3. Explain and give examples of the law of diminishing marginal returns.

Time Required

One class period

Lesson Description

Students work in groups and use marginal analysis to decide the best option in a case involving tree production.

Materials

One copy for each student: Handout 3-3-1 and 3-3-2.
A transparency of Visual 3-3-1.

Procedure

1. Explain that the purpose of this lesson is to show that producers, like consumers, make decisions at the margin. Producers are constantly trying to figure out if they should produce a few more or a few less of their products.
2. Distribute Handout 3-3-1. Explain to the students that they will decide how many workers to hire to cut trees for a lumber company. Have them read the first page of the handout.
3. Project Visual 3-3-1. Explain the column headings and data, particularly how the numbers in the column labeled "Additional Trees Produced" are found. Say, for example, "The first worker cuts and loads eight trees in a day, and the additional trees produced by the first worker compared with no workers at all is eight. Hiring a second worker brings the total number of trees cut and loaded to 18. Thus, the second worker accounts for the production of 10 more trees than when only one worker is used. So the additional product is 10, and so on."
4. Have the students complete the "Additional Trees Produced" column, and be sure they understand the idea. Some students might ask why the additional product increases first and then declines. Point out that at first having more workers increases efficiency as they help each other string lines, load trees, and do other tasks. At some point, there is not enough equipment or tasks to keep all workers busy all of the time. At that point, additional output begins to diminish; this is an example of "the law of diminishing returns" at work.
5. Divide the class into management teams of four or five students each. Ask each team to decide how many workers it will hire and to prepare a justification for its decision.
6. After allowing time for the students to reach decisions, ask each group to state its decision and give its justification. Some groups will probably select four workers because returns diminish beyond that point. Later they will see that this decision is wrong.
7. Tell the groups that you have additional information for them that might make them change their decisions. Have the students label column 4 (now blank): "Value of Additional Trees" and column 5 "Additional Labor Cost." Explain that each tree cut and loaded is worth $20. Thus, the "Value of Additional Trees" produced by the first worker is $160 ($20 X 8 = $160). The value of the second worker's additional output is $200 ($20 X 10 = $200), and so on. Tell them that a worker gets $53 per day in wages and benefits. Therefore, the "Additional Labor Cost" of one worker is $53 a day

Adapted from *Teaching Strategies: High School Economics Courses*. National Council on Economic Education, 1985.

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compared with having no workers at all. The cost of the second worker is an additional $53, and so on. Have the class assist you in completing the table, and fill in the numbers on the transparency. The completed table follows the closure suggestions below.

8. Allow the groups time to decide how many workers to hire. Then ask each group for its new decision and justification. Students should decide on nine workers. If not — let us assume the students' answer is five — ask whether the additional value produced by the sixth worker exceeds the cost of hiring that worker. The seventh? The eighth? The tenth?

9. Point out the general rule that additional workers will be hired as long as the additional (marginal) value of the output of the last worker employed exceeds the additional (marginal) cost of hiring that worker.

10. Ask the students to arrive at new decisions given the following changes in conditions:

    A. The basic wage is increased. Workers now must receive $62 per day. (8 workers)

    B. A new Lumber Workers Union negotiates an industry-wide wage of $105 per day. (7 workers)

Closure

1. Distribute Handout 3-3-2. The students should use marginal analysis to choose the best option.

2. Ask the class to give examples of personal and government problems to which marginal analysis might be applied. List the examples on the chalkboard. Ask the class what data would be needed to decide how to solve these problems.

Handout 3-3-1 Answers
Tree Production

No. of Additional Workers per Day (2)	No. of Trees Cut & Loaded per Day (3)	No. of Additional Trees Produced per Day (4)	Value of Additional Labor Cost per Day (5)	Additional Workers (1)
1	8	8	$160	$53
2	18	10	200	53
3	40	22	440	53
4	89	49	980	53
5	130	41	820	53
6	150	20	400	53
7	159	9	180	53
8	164	5	100	53
9	167	3	60	53
10	169	2	40	53

Number of workers to hire: 9, because the additional cost of the tenth worker exceeds the additional value of what that worker produces.

Handout 3-3-2 Answers

Option 5, because the marginal cost of adopting option 6 is $12 million, which exceeds the benefits of $10 million.

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Visual 3-3-1
Tree Production

No. of Workers (1)	No. of Trees Cut & Loaded per Day (2)	No. of Additional Trees Produced per Day (3)	(4)	(5)
1	8	8		
2	18	10		
3	40	22		
4	89	49		
5	130	41		
6	150			
7	159			
8	164			
9	167			
10	169			

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Unit 3
Lesson 4
Consumers and Producers Face Sunk Costs

Introduction

Economics Distinguishing between sunk costs and opportunity costs is an important economic reasoning skill. Opportunity costs reflect people's expectations about the future. Costs that have already occurred are sunk costs. These costs are historical and, as such, they provide only historical lessons about costs.

Reasoning A key assumption of economic reasoning is that the consequences of choice lie in the future. Costs are involved only when there is an opportunity for choice. All economic choices are made in the present with an eye fixed firmly on the future. By avoiding distractions of the past, choices that cannot be changed, individuals can make better decisions.

Concepts

Decision making
Sunk Cost

Instructional Objectives

Students will
1. Distinguish sunk costs from other costs.

2. Identify sunk costs in specific examples.

Lesson Description

Students participate in small group and large group discussions to analyze the sunk costs in four situations.

Time Required

One class period

Materials

One copy for each student: Handout 3-4-1.

Procedure

1. Explain that consumers and business people often misunderstand costs. The purpose of today's lesson is to sharpen students' decision making skills by providing a better understanding of what is and what is not a *sunk cost*.

2. Ask: Would an owner of a steel plant deliberately keep a plant in operation when the price of steel has dropped so low that it will be impossible to recover the costs of construction?

   (Encourage the students to present many ideas. Eventually, explain that the owner of the steel plant might be making a wise decision not continuing to operate the plant. The construction cost of the old plant is a sunk cost. The producer might continue to keep an old plant in production as long as there was no better option.)

3. Ask: What might happen if a valuable diamond deposit was discovered under the old steel plant?

   (Explain that the producer would probably sell the land to a diamond mining company. The alternative of profiting from the sale of diamond rich land would be far more attractive than keeping the old steel plant in operation.)

4. Distribute Handout 3-4-1. Read the opening section "What is a Sunk Cost?" to the class. Discuss the definition of sunk costs.

5. Divide the class into groups. Ask each group to examine the three cases and decide which costs are sunk and what decision should be made.

6. Lead a whole group discussion of the group's responses. The following are some ideas you may wish to stress.

   Barney the Grocer: The sunk cost to Barney is $10. Barney is acting like a smart grocer. The market value of a case of old cucumbers is probably $3. If he does not sell them, he loses $10. If he does sell them, he loses only $7.

   Dobby's Stereo: The sunk cost to Dobby is $500. He loses $500 unless he decides to sell. If he sells, he loses $450. If he keeps the stereo, he must (1) be getting at least $450 worth of benefit or (2) the alternative — buying a new system — is too high for Dobby right now.

   Cleavers' Sublet: The Cleavers sunk cost is $500 per month. They should sublet the apartment in order to reduce their losses of $100 per month.

   Ricky's Car: Ricky's sunk cost is $2250. Should he spend the additional $400? The value of his car without repairs will be $150. The value with the additional repairs is $1800. He decided to take the risk that few future repairs will need to be done. He valued this over the alternatives which might have included buying another car, using mass transit, or bumming rides from his friends.

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Closure

Review the idea of sunk costs.

A. What are past costs called?

(Sunk costs)

B. Are sunk costs important to consider in making future decisions?

(Yes, but they are valuable only as a history lesson. Real costs are only in the future.)

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Unit 3
Lesson 5
Why do Some People Earn More Money Than Others?

Introduction

Economics The concept of *human capital* refers to the knowledge, skills and experience that potential workers bring to the marketplace. Young people can enhance their individual level of human capital by investing in their own futures.

Labor markets are governed by the rules of supply and demand. The idea of *derived demand* is important in the functioning of any market. It refers to the fact that goods and services are of value because people want them, and that demand for the factors (e.g., labor) that produce the goods is *derived* from the demand for the final goods or services. Finally, establishing the price of labor above the market clearing price results in fewer jobs at higher levels of pay.

Reasoning The concept of derived demand is an extension of the assumptions that people economize and that incentives influence people's behavior in predictable ways. Economic reasoning holds that goods and services are of value only because people want them. This idea helps explain why some jobs pay more than others. Reasoning about labor markets also stresses that there are substitutes for everything —even for workers. When the price of workers is increased above the market clearing price, employers will be encouraged to economize by making substitutions. Moreover, individuals who would be willing to work for wage rates below the new minimum will also have to seek substitutes for the jobs they may have had without the new minimum wage.

Concepts

Human Capital
Derived Demand
Demand and supply in labor markets
Minimum wage

Instructional Objectives

Students will

1. Identify careers they are considering.
2. Recognize that the market value of labor services is derived from demand for goods and services.
3. Recognize that human capital is influenced by the amount of education, experience or training a person possesses.
4. Identify who benefits and who is hurt by a significant increase in the minimum wage.

Lesson Description

This lesson begins with class discussion of student careers as an introduction to the concepts of *derived demand*, *human capital* and *minimum wages*. Handouts are used as the basis for class discussion.

Time Required

Two class periods

Materials

One copy for each student: Handout 3-5-1, 3-5-2, and 3-5-3.

Procedure

1. Explain that the purpose of this lesson is to seek explanations to some persistent confusion involving people's incomes.

2. Distribute Handout 3-5-1. Ask each student to jot down 3-5 careers he or she is considering, to note also the training each career would require, and to give a reason for each of the top choices.

3. Discuss the career options that the students are considering. Mention that income is one variable most people consider as they decide what kind of career they prefer.

4. Note that it is sometimes puzzling why income levels for various jobs vary quite a lot. Ask the students why there might be so much variation. Likely reasons might be the amount of education required, the amount of previous experience, or the skill necessary. Explain that all these can be contributing factors, but there is a more fundamental explanation which involves demand.

5. Distribute Handout 3-5-2. Ask the students to read the opening three paragraphs. Ask:

   What are some things that people wanting jobs can do to convince employers to hire them rather than someone else? List ideas on the board.

   (Some suggestions might be to obtain the training necessary for the job or to gain related work experiences.)

6. Write the term *derived demand* on the chalkboard. Explain to the class that the skill or knowledge we can offer an employer is only of value because it is a means to an end. The end, in this case, is providing people with goods and services they value. If our knowledge or skill helps to meet people's demand for goods and services, then our labor is valuable. The demand for labor is derived from the demand for goods and services that people want. Labor

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which is valued becomes a source of income. Conversely, labor that provides goods or services that people do not want goes unrewarded.

7. Read with the class the first two examples of derived demand in Handout 3-5-2. Ask them to complete the remaining examples with a partner.

8. Discuss the responses. Some probable responses include:
Nurses: People desire long-term health care. This is especially important as the life expectancy of people in the U.S. increases.

   Plumbers: People want toilets and baths that work well and need few repairs. Increasingly, people are demanding more elaborate plumbing like hot tubs and spas.

   President: People want a strong, capable president — but not at any price. Certainly, people with far less responsibility than the president receive much more income. This case shows how benefits other than salary — power, prestige, a place in history —sometimes make a job attractive beyond the income provided.

9. Explain to the class that labor markets work like other markets. Distribute Handout 3-5-3. Ask the students to read the introductory paragraphs which explain the concept of human capital. Ask:

   A. What is human capital?

      (Improvements in knowledge and skill which make people more productive.)

   B. How do people invest in human capital?

      (By gaining education.)

10. Direct the attention of the class to the supply and demand figure in Handout 3-5-3. Illustrate this same figure on the chalkboard. In whole group discussion, discuss the responses to questions 2-5.

Closure

Conclude the lesson by asking questions to check for understanding.

A. Why do some people receive more income than others?

   (People desire some goods and services more than others. The value of labor ultimately depends on what people are willing to pay for the benefits provided.)

B. What do you predict businesses will do when the minimum wage is set significantly above the market clearing price?

   (Employers would be encouraged to hire fewer people and substitute machines for labor.)

Responses to Handout 3-5-3

1. Use the figure on the chalkboard to explain how setting the wage rate above the market clearing price will result in a surplus — more people wanting jobs than employers are willing to hire at that wage rate.

2. Employing fewer full-time workers and reducing hours of current employees are frequent responses to the higher cost of workers. Employers might substitute additional machines (devices that automatically made French fries or broil hamburgers) for the higher cost of labor.

3. People who no longer have legal access to jobs below minimum wage may substitute illegal jobs (ones that pay below the minimum wage), may seek additional training so they can compete for other jobs, or may substitute help from government welfare programs for jobs.

4. People who would have jobs under the old wage and are laid off because of the new wage.

5. People who will benefit are those people who retain their jobs and receive the higher wage.

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Unit 3
Lesson 6
Productivity

Introduction

Economics Because scarcity is the fundamental economic problem, people try to get as much output as possible from their available resources. The existence of scarcity encourages people to increase *productivity*, which is usually defined as the amount of output of goods and services produced per worker.

Reasoning Economic reasoning states that people economize. They try to get the greatest benefits from limited resources. This lesson shows that specialization and division of labor are means producers use to improve productivity. Striving to improve productivity is a reflection of producers' desires to make economizing choices as they respond to incentives.

Concepts

Productivity
Division of Labor
Scarcity
Investment in capital goods

Instructional Objectives

Students will

1. Define productivity.
2. Explain that improved productivity enhances economic growth.
3. Calculate and interpret productivity figures.
4. Discuss the factors of production.

Lesson Description

Students participate in a production simulation to learn why people specialize.

Time Required

Two class periods

Materials

A supply of 8½ X 11 (or larger) scrap paper.
A pair of scissors for each company formed.
One copy for each student: Handout 3-6-1 and 3-6-2.

Procedure

1. Explain that the purpose of this lesson is to explore how businesses try to obtain the greatest benefit from the fewest possible resources.

2. Explain that businesses begin with an idea for a product or a service and then an entrepreneur takes that idea and transforms it into a reality. Examples are the airplane, the computer, a new style of clothing or type of food. Now ask the students to think of a product or service which they think the public would buy. The product or service does not have to be a new one. Discuss the students' answers. Ask them what they would need to make their idea a reality.

3. Begin the following simulation:

   A. Divide the class into airplane companies composed of seven students per company. Each group should choose a name for its company.

   B. Select a student to be the quality control expert and give the expert the following instructions: "You will be responsible for accepting or rejecting each group's airplanes. You will be responsible for recording the number of acceptable planes made by each production company."

   C. Demonstrate how to construct an airplane. Say to the groups: "Cut the paper in half (4½ X 11). You cannot tear this paper, you must use scissors. Now make a paper airplane using this piece of paper. All airplanes produced by a company must be made the same way." Give each team time to design their own plane.

   D. Distribute the paper to the groups and let each student make a practice airplane. Discard all practice airplanes.

   E. Give a copy of Handout 3-6-1 to each group. Tell students that they should record the results of their airplane production. Make sure they understand all the categories for which they must record data on the Handout.

   F. Have the students clear their desks except for the worksheet, paper, and one pair of scissors per company.

   G. Conduct five rounds of the simulation:
   Round 1 Inform the students that all the workers in each company must share the scissors. Each student must work alone to make the airplanes. There is no specialization.

      1. Allow the students three minutes for the production of airplanes.
      2. Have each company record its data on Handout 3-6-1. Review the results to make sure the groups have recorded their data correctly.

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Round 2 Ask the students to introduce division of labor. Have them break down the production of the airplanes into a series of steps including cutting and folding the paper. They should assign each member of the group to perform one or two of these specific steps. Give the students a few moments to decide how to organize their production.

Repeat steps a and b from Round 1.

Round 3 Allow each company to buy as many additional pairs of scissors as they care to at $1.00 each. (The scissors will constitute the capital goods the group will use.)

Repeat steps a and b from Round 1.

Round 4 (Optional) Tell each company that it must fire one of its workers. Have all fired workers start their own company.

Repeat steps a and b from Round 1.

Round 5 (Optional) Place restrictions on the workers. All workers must take a break after they have worked on two airplanes.

Repeat steps a and b from Round 1.

c. Explain that there is a simple method to measure how productive each company has been. Give students the following general definition of productivity: productivity is the ratio of the amount of output of goods or services produced per worker. Ask the students to pick out the data categories in the entries in sample column of Handout 3-6-1 that were used in calculating the productivity ratio shown on line 10. Explain that the ratio rises as productivity improves.

4. Discuss their information on Handout 3-6-1. Ask:

A. What effect did the division of labor in Round 2 have on productivity?

(Students must interpret their data. The division of labor should improve productivity.)

B. Did the division of labor lead to a more uniform product?

(It should have, because each person repeated only one or two tasks.)

C. What effect did investing in additional capital goods (scissors) in Round 3 have on productivity?

(Capital investment should improve productivity.)

D. What effect did firing workers in Round 4 have on production?

(If the extra workers were not needed, firing workers should have improved productivity. If they were needed, their loss should have lowered productivity.

E. What effect did increased productivity have on average cost?

(It lowered average cost.)

F. What new cost was incurred by attempts to increase productivity?

(Buying additional capital goods-the extra pairs of scissors increased cost.)

G. Why is it important to increase productivity?

(It allows a society to obtain more goods and services from its scarce resources.)

H. What are some steps that can be taken to increase productivity?

(Set up a division of labor, use more and better capital equipment, train workers better, reduce number of excess workers — if any.)

Closure

Give a copy of Handout 3-6-2 to each student or use the handout as a transparency. Discuss the productivity data with the class to be sure everyone understands it. Productivity in the U.S. was generally rising from the end of World War II until the latter 1970s. The rate of growth in productivity leveled off beginning in the mid 1960s and fell in 1974, 1979, 1980, and 1981. After discussing, have students answer the questions at the bottom of the handout.

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Unit 3
Lesson 7
When There Isn't Pure Competition

Introduction

Economics This lesson should help students understand different market structures and some of the arguments about government attempts to preserve competition. Because most actual markets do not fit the assumptions of the perfectly competitive market model, it is necessary to examine what happens when these assumptions, such as perfect information and an industry consisting of many small firms, are violated. Economists have developed market models to explain how other market structures, such as those characterized by monopoly, oligopoly, and monopolistic competition, can produce results that differ from those expected under purely competitive conditions.

Reasoning People often state that they have no choice when a monopoly exists. An assumption of economics, however, is that individuals have choices. Individuals can choose substitutes — even for goods or services that are provided by monopolies. For example, the postal service can be considered an example of a monopoly. What are substitutes for postal service today? The growth of numerous private delivery firms suggests that the U.S. Postal Service is not really a monopoly. Natural gas companies might be considered monopolies. What can people substitute for natural gas? They might consider using alternative sources for home heat such as solar power or wood burning stoves.

Concepts

Competition and market structure
Monopoly
Oligopoly
Monopolistic competition
Market failures

Instructional Objectives

Students will

1. Recognize characteristics of different market structures.
2. Name the type of market structure under which a firm operates.
3. Analyze price-setting behavior of a monopoly.
4. Evaluate different approaches to government policy regarding noncompetitive markets.

Adapted from *Teaching Strategies: High School Economics Courses*, National Council on Economic Education, 1985.

Lesson Description

This lesson helps students understand economizing behavior as it operates in different market structures by means of class discussions based on student handouts.

Time Required

Two class periods

Materials

One copy for each student: Handout 3-7-1, 3-7-2, 3-7-3, 3-7-4, and 3-7-5.

Procedure

1. Explain that the purpose of this lesson is to help students understand the differences among pure competition (called perfect competition in some textbooks), monopolistic competition, pure oligopoly, differentiated oligopoly, and monopoly. Distribute Handout 3-7-1 to the students and ask them to read it. Ask:

   A. What is the difference between homogeneous and differentiated products?

   (Homogeneous products are identical; differentiated products vary in quality and type. Raw cane sugar is homogeneous; candy bars are differentiated.)

   B. What is the difference between pure competition and monopolistic competition?

   (In pure competition, products are identical and market forces set the price. Under monopolistic competition, products are differentiated and competition takes place in terms of both price and quality.)

   C. Is monopolistic competition close to monopoly?

   (No, it is closer to pure competition because it has many firms.)

   D. What are the main characteristics of oligopoly?

   (Few firms, price leadership, barriers to entry.)

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E. What is the difference between pure oligopoly and differentiated oligopoly?

(Pure oligopolists make identical products; differentiated oligopolists make products that compete against each other in terms of quality.)

F. What are some examples of barriers to entry?

(Large advertising costs, patents, licenses, high level of capital investment.)

G. What is the distinguishing characteristic of monopoly?

(Only one firm in an industry or in a particular geographical area or in a particular market in which other firms are unable to compete.)

H. If people can always substitute one thing for another, can we ever have a perfect monopoly?

(No, the existence of substitutes makes a perfect monopoly impossible.)

2. Ask the students to fill in the last column of Handout 3-7-1 with examples of each market structure. Discuss their answers. Possible answers follow:

Pure competition: the wheat, corn, and other markets for agricultural products

Monopolistic competition: fast food, gasoline and other products sold at retail that carry brand names

Pure oligopoly: steel, aluminum

Differentiated oligopoly: breakfast cereal, beer, soft drinks, toothpaste, soap

Monopoly: electric utilities, gas utilities, local phone service

3. Distribute Handout 3-7-2. You can use this handout as a quiz or for a discussion. Answers appear below.

4. Distribute Handout 3-7-3. The purpose of the case study is to have students understand that many antitrust policy decisions are not clear-cut. Have the students read the case study and then write the answers to the seven questions. Discuss the answers with the students. Then ask some students for their recommendations on the case.

5. Distribute Handout 3-7-4. You can use this case study as a quiz, or you can use it as another part of step 4, above. (Students can work on Handouts 3-7-3 and 3-7-4 in small groups and make group recommendations.)

Closure

Review key ideas of this lesson. Ask:

What are the key features of pure competition? pure oligoply? monopoly?

Answers to Questions in Handouts

Handout 3-7-2

Suspect 1. Pure oligopoly: "oligopoly" because of price leadership, and "pure" because Suspect 5 must be a differentiated oligopoly.

Suspect 2. Monopolistic competition: because the presence of a large number of sellers eliminates oligopoly and monopoly, and the need to advertise eliminates pure competition.

Suspect 3. Pure competition: the existence of many competitors eliminates monopoly; the lack of product differentiation eliminates monopolistic competition and differentiated oligopoly; and Suspect 1 accounts for the only other remaining possibility.

Suspect 4. Monopoly: the lack of homogeneous products eliminates pure competition and pure oligopoly, and the other two possibilities are accounted for by Suspects 2 and 5.

Suspect 5. Differentiated oligopoly: because of barriers to entry and product differentiation.

Handout 3-7-3

1. Differentiated oligopoly.

2. As more sales are concentrated among fewer firms, the remaining firms are tending to turn into oligopolies.

3. Advertising costs and brand recognition/loyalty.

4. More concentrated markets can lead to lower output, higher prices, and mis-allocated resources.

5. Promoting competition.

6. Answers will vary. Other goals to consider, for example, are economic security for the workers at the two breweries and economic freedom.

7. Answers will vary. One major point of difference among students may well concern whether they believe the two companies can survive without merging.

Handout 3-7-4

1. Will breaking up the monopoly produce lower prices and raise output? Are there economies of scale? What, if anything, prevents potential competitors from entering the market?

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2. Do nothing. Lift the import ban. Break up AHTI.

3. Answers will vary but should include promoting competition and economic freedom.

4. Answers will vary.

Handout 3-7-5
From the consumer's point of view, the important factor is that mandating higher prices will not protect consumers. In fact, it limits price competition and hurts consumers. Protecting competitors does not necessarily preserve competition. The proposed legislation reduces competition, probably more effectively than the "big" companies could do by themselves. There may be a greater number of firms, but they won't be competing as much.

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Unit 3
Lesson 8
Labor and Management Negotiate

Introduction

Economics Supply and demand are not the only factors that influence the price of labor. In the case of labor negotiations, these forces lead to a small range of possible results. The laws of supply and demand still hold, but, in the case of labor negotiations, changes in supply and demand lead to changes in the *range* of possible outcomes rather than a specific wage change. This lesson stresses that although labor and management have conflicting interests, both parties benefit from the exchange of wages for labor services. The fact that neither group will likely capture all of the benefits of exchange for itself is the natural result of compromise.

Reasoning A key assumption of economic reasoning is that people respond to incentives in predictable ways. It is not surprising that incentives guide labor and management negotiations. Each side actively strives to achieve goals which are thought to be in the best interest of the group. Narrow interests have to be weighed against broad common interests. Neither side wishes to knowingly agree on a contract that will make the firm uncompetitive and, thus, unable to survive in a marketplace. In other words, both sides have strong incentives to reach a reasonable agreement.

Concepts

Labor
Management
Compromise
Negotiation
Strike

Instructional Objectives

Students will

1. Identify common and divergent interest of labor and management.
2. Explain how labor-management contracts influence the market price of goods and services.
3. Identify the opportunity cost involved in a variety of possible contracts.
4. Work in a small group to help resolve a labor-management contract dispute.
5. Evaluate contract offers.

Adapted from *In the Marketplace*. Superintendent of Public Instruction, Olympia, WA, 1980.

Lesson Description

Students participate in small groups to simulate the collective bargaining process.

Time Required

Two class periods

Materials

One copy for each student: Handout 3-8-1.
One copy for workers only: Handout 3-8-2.
One copy for management only: Handout 3-8-3.

Procedure

1. Explain that the purpose of this lesson is to show how labor and management negotiations influence the price of labor.

2. Have the students identify some examples of labor unions. Ask:
   Are you a member of a labor union? If so, what is the name of it?

   (It is possible that one or two students might be union members because of a part-time job.)

   Do you have a friend or a parent who is a member of a labor union? If so, what is the name of it?

3. List the names of unions on the board.

4. Explain that one of the primary functions of a labor union is to negotiate a contract which specifies the wages and many of the working conditions of the employees. Explain that in this lesson the students will be learning how labor and management agree on a contract by participating in the negotiations process. Stress that this is a non-market economic activity which affects the price of labor.

5. Tell the class that in order to participate effectively in labor and management negotiations, they will need to understand some of the background of the situation. Distribute Handout 3-8-1 to the class and ask them to read it carefully. Ask:

   A. What is collective bargaining?

      (Representatives of labor and management negotiate a legal contract which states the terms under which they will work together.)

   B. What does labor try to accomplish in negotiations?

      (Workers try to get as much as they can in salaries and benefits.)

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C. What does management try to accomplish in negotiations?

(To maintain production at the least cost.)

D. What do you know about the employer?

(Board Foot Inc. is a large employer with four competitors.)

E. What do you know about the union?

(Circle Saws Local 1 has 150 members. It takes three to four weeks to train workers. There are not enough non-union workers in the immediate area to operate the plant if there is a strike.)

6. Review Handout 3-8-1.

7. To begin the simulation, divide the class into groups of six if possible. Three members of each group should take the role of labor. The other three members should take the role of management.

8. Distribute Handout 3-8-2 to labor members only and Handout 3-8-3 to management members only. Explain that the information in these Handouts is only for the use of the labor and the management teams and should not be shared between the groups. Ask the students to read the information on their Handout, to learn about their bargaining positions.

9. Have all the groups caucus in two separate parts of the room (labor, management) for five minutes. Tell the students that the purpose of the caucus is to allow the groups to identify beginning bargaining strategies.

10. Return the students to the original groups of six and have them begin the first round of team bargaining. Allow five to eight minutes. Probably no agreements will be reached.

11. Have all the labor and management teams caucus again in separate parts of the room to decide on strategies for the next round.

12. Repeat rounds of negotiations and caucuses until a contract agreement is reached.

13. After the agreements have been reached, ask the students to write down the agreement and present you with a signed contract.

Closure

Help students reflect on their experience in the simulation by leading a class discussion of what happened. Ask:

A. What were the terms of the contract in your group?

(List the results of the negotiations on the board and encourage the students to compare and contrast the terms.)

B. What emotions did you experience during the simulation?

(Students might express such feelings as pressure, frustration, excitement, competitiveness.)

C. What seemed to motivate each side?

(Management sought to maintain high profits while labor sought to increase wages.)

D. Was it possible for both sides to get all their demands?

(No, the relationship would be destroyed and total protection would decline because the groups are interdependent.)

E. Were the goals of labor and management similar?

(Yes and no. Both groups desire to keep the company going but other goals are in conflict.)

F. What was necessary for the groups to arrive at an agreement?

(Listen closely to stated positions, detect weaknesses and strengths, use logical arguments, be willing to compromise.)

G. How do labor and management negotiations help establish the price of labor in the market?

(The price is influenced by the power of management and the union. This is similar to command economic activity, which differs from traditional and market economic activity.)

H. What do you think was realistic about this situation?

(People bargained hard, people sought compromises, the issues of profits and wages are really world-wide concerns.)

I. What do you think was unrealistic about this simulation?

(The situation was contrived; real negotiations would be more complex.)

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Sample Test Items

Unit 3 Consumers and Producers

1. In economics, marginal means

   A. Too close to call.

   *B. Additional.

   C. Discounted.

   D. Cost or benefit.

2. Use the table below to answer the following question: What is the marginal cost of making the fourth automobile?

		Autos	Total Cost
A.	$ 45,000	1	$20,000
B.	135,000	2	30,000
C.	10,000	3	40,000
*D.	5,000	4	45,000

3. A past cost is a(n)

   A. Average cost.

   *B. Sunk cost.

   C. Opportunity cost.

   D. Overhead cost.

4. Kenny, the respected owner of Kenny's Uncanny Cafe, purchased Danish breakfast rolls last Monday at $.50 each. By Thursday, he is thinking about selling them for $.20 each. Should he do it?

   A. No, a respected business person would not sell a produce below its cost.

   B. No, if consumers are unwilling to pay the cost of production, goods cannot be provided.

   C. Yes, but only if the consumers will promise to buy Danish at the "market" price next week.

   *D. Yes, the current opportunity cost of the Danish is near zero regardless of what was paid for them.

5. If the demand for petroleum increases and remains high for several years, the demand for and the wages paid to geologists will increase. This result is an example of

   *A. Derived demand.

   B. Deferred supply.

   C. Irregular or upward sloping demand.

   D. Disincentives.

6. Laws requiring that higher minimum wages be paid to workers will probably result in

   A. Increased levels of employment.

   *B. Lower levels of employment.

   C. Higher wages for college professors.

   D. Higher prices for consumers.

7. McDonald's, Hardees, and Wendy's are examples of businesses operating in this type of market structure:

   A. Pure competition.

   *B. Monopolistic competition.

   C. Pure oligopoly.

   D. Monopoly.

8. What kind of economic activity is labor and management negotiation?

   A. Market

   *B. Command

   C. Tradition

   D. Mixed

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Sample Essay Questions: Conversations About Economics

The following are essay questions designed for Unit 3. Students should evaluate the arguments of each speaker. Is the speaker thinking economically or non-economically? Why?

I. Merger Mania

Gail Thomas The government needs to do something about all these mergers. Big companies don't care about ordinary people or the economy. I don't think they even care about their stockholders.

Mark Kohn I couldn't agree more. Competitive firms aren't like greedy monopolies. Competitive firms are fair and public-spirited. Monopolists care only about profits.

II. Drop Back Ten and Kick

Joe Jaramillo I think Big State University should drop football. Look at the expenses! We pay a bundle of bucks to a coach who wins only a few games a year.

Hal Penn I think we should hire a new coach. If we had a winning team, we'd fill the stands.

Dottie Brown Hold on, we're still paying off the contracts of 2 old coaches. Can we afford to pay off a third?

Bill Schink Even if we put people in the stands, expenses would be too high. You need to consider the salaries of the athletic director, the head coach, the dozen assistant coaches, and the players' scholarships.

Lynn Barnes You forgot about the stadium. I understand the university is still paying off the bonds used to raise funds to build it.

III. The Value of Work

Larry Christian Economics makes no sense. Someone doing hard work in a factory earns barely enough to get by while some executive sitting in an air-conditioned office earns big bucks.

Mary Heim Not only that, look at athletes. They play fun games like basketball. Yet some basketball players make over a million dollars a year. And they have the nerve to complain that they're underpaid!

Howard Spicer I think ordinary workers get ripped off because they must compete with cheap foreign labor. Keep foreign goods out of the U.S., and our wages could rise. That's an easy way to improve our standard of living.

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UNIT 3
Answers For Teachers and Discussion Points on Sample Essay Questions

I. Merger Mania

Gail Thomas makes some good points. Some economists have questioned using financial capital so one company can buy another. This is capital that cannot be used to finance new plants and machines. When the focus is on mergers, managers may not be tending the store and trying to improve products and services. The fear of mergers causes managers to focus on short-term results rather than long-term objectives.

On the other hand, productivity is improved if an efficient company buys out an inefficient one. Usually the stockholders of the company being purchased do quite well. It often is argued that the reason a company was purchased was because the low stock price reflected poor management.

Mark Kohn's analysis of mōñopolies is wrong. Both perfect competitors and monopolists have the goal of maximizing profits. In the case of perfect competitors, this profit-maximizing behavior helps consumers get the product at a price that just covers implicit and explicit costs in the long run. The perfect competitor will also use resources efficiently or go out of business. In the case of a monopoly, the consumer will pay a higher price and output will be lower. There is less incentive to be efficient.

II. Drop Back Ten and Kick

This case illustrates two important concepts in economics — only variable costs are considered in the short run in making production decisions and all decisions are made at the margin.

The interest on bonds to build the stadium should not be considered. It is a fixed cost, which will be paid whether or not the university uses the stadium. Salaries and players' scholarships are variable costs and should be considered. If the university continues playing other sports, it will probably need an athletic director.

The fact that the university is paying off the contracts of two former coaches should not be considered in deciding whether to fire the present coach. Those past salaries are sunk costs. The decision should be based on the marginal benefits and marginal costs of paying off the salary of the third coach and hiring the fourth coach.

III. The Value of Work

All three people are wrong. The demand for labor is derived from the demand for the goods and services the workers produce. Therefore, the demand for any resource (land, labor, and capital) depends on its productivity and the price and output of the good or service it is producing. In competitive labor markets, workers will be paid a wage equal to the extra revenue they produce. Economists would say that the wage will be equal to a worker's marginal revenue product. A star basketball player adds a lot of revenue by drawing more fans.

Howard Spicer's answer is a popular view today. However, our standard of living depends on our productivity. Keeping foreign goods out of the country will allow inefficient companies the opportunity not to compete. This will lower productivity and our standard of living.

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Unit 4
The Role of Government in Economics

	Letter to the *Capstone* Teacher
Lesson 1	Introduction to the Public Sector
Lesson 2	The Constitution and You
Lesson 3	The Influence of Economic Problems on the Constitution
Lesson 4	Why Do We Want Government? Public Versus Private Goods
Lesson 5	Why Do They Run?
Lesson 6	What is a Fair Tax?
Lesson 7	Can Taxes Be Incentives?
Lesson 8	The Economics of Special Interest Groups
Lesson 9	The Role of Government: Social Regulation of Business
Lesson 10	The Economics of Voting
Lesson 11	Thinking Economically About the Environment
Test	Sample Test Items

"The more you know about how government leaders make decisions, the better you can forecast how government decisions may affect you."

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Unit 4
Letter to the *Capstone* Teacher

Dear *Capstone* Teacher:

The purpose of this unit is to introduce students to the role of government in the economy. As usual, it begins with a quiz. The quiz should be used only as a motivational tool. Do not count it for a grade.

Statement 1 in the quiz, "Americans are free because we have a constitution," is false. Many nations, such as the Latin American countries, have constitutions similar to our own and yet have failed to develop economically. While the ability of the framers of the U.S. Constitution to fashion a truly remarkable document cannot be disputed, we should remember that the Constitution works because Americans support the values expressed in it.

Statement 2, "Governments must produce some goods and services because the private sector will not produce them," is true. As citizens, students must be able to make decisions about what government should and should not do. Government should provide those goods and services that are characterized by non-exclusion and shared consumption. Non-exclusion means that it is difficult to exclude non-payers from receiving the benefit of a good or service. For example, how do you exclude someone from using a street light? How do you exclude someone from receiving the benefits of national defense? Shared consumption means that the consumption of a good or service by one consumer does not reduce the benefit to other consumers. For example, one person's consumption of national defense does not take away from another person's consumption of national defense.

Although government can provide goods that the private sector won't provide, there are characteristics of government which sometimes result in government failures. This is the emphasis of statements 3, 4, and 5, which are all false. Statement 3, "Government leaders serve the public interest while business leaders serve only their private interest," is false because individuals in government are motivated by self-interest and incentives just as people in the private sector are. Economists now are analyzing public decisions by assuming that the political person like the economic person is a rational, self-interested satisfaction maximizer. This is called the public choice theory of economics. Unfortunately, self-interested behavior does not always result in outcomes that are beneficial to the general welfare. Competition in the private sector channels self-interest into social cooperation. The lack of competition in the public sector often leads to an expanded role for government. While business leaders try to maximize profits, political leaders and bureaucrats try to maximize perks and preserve their jobs.

Statement 4, "Consumers usually benefit from government regulation of business," is false because government regulations have costs as well as benefits. It is not enough to say a government regulation benefits consumers until we also know the cost. For example, recent moves to deregulate business have lowered some prices such as air fares. Of course, deregulation also has costs.

Statement 5, "Special interest groups can gain special favors only from corrupt politicians," is false. Economic studies have shown that the concentrated power of special interests is stronger than the diffused power of the public interest. This means that special interests will lobby the government more than voters. In *The Logic of Collective Action*, Mancur Olson argues that interest groups with a small number of participants, like a trade association in an oligopolistic industry, will form more readily than large organizations such as a consumers' union. The results may not be good for public policy.

Sincerely,

The *Capstone* Authors

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Unit 4
Lesson 1
Introduction to the Public Sector

Introduction

Economics Lesson 1 introduces students to the economic role of government. It stresses the idea that government influences personal and business economic choices by setting and enforcing rules.

Reasoning Lesson 1 stresses two key economic assumptions: people respond to incentives in predictable ways, and economic systems influence individual choices and incentives. While previous lessons have used these assumptions to explain and predict behavior in the private sector, the lessons in this unit use them to explain and predict behavior in the public sector.

Concepts

Economic role of government
Incentives

Instructional Objectives

Students will

1. Identify ways in which government influences alternatives and choices.
2. Review key principles of economic reasoning.

Lesson Description

Students learn how government affects their everyday lives. They read a letter from the course authors to explain this unit, and they take a "quiz" about the role of government in the economy.

Time Required

One class period

Materials

One copy for each student: Handout 4-1-1 and 4-1-2.

Procedure

1. Explain that for the next few classes the students will be studying the role of government in the economy. Stress the effect of government on the everyday lives of young people. Ask:

   A. How did you come to school today?

   (Traveled on a public street, rode a school bus, rode with a state-licensed driver, etc.)

   B. What are some taxes you have paid in the last week?

   (Sales tax, excise tax, social security and income taxes by students who have jobs)

   C. Who has eaten government-inspected beef, pork, or poultry in the last few days?

   D. What government services have you used so far this week?

   (Streets, schools, post office, etc.)

2. Explain that many people misunderstand the economic role played by the government, and they also may misunderstand the role of elected officials in making economic decisions. Distribute Handout 4-1-1 and ask students to complete the quiz. Discuss the students' responses, stressing ideas in the Letter to the *Capstone* Teacher.

Closure

Distribute Handout 4-1-2. After the students have read the letter, review briefly the six assumptions for economic reasoning, emphasizing their relevance to the public sector.

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Unit 4
Lesson 2
The Constitution and You

Introduction

Economics The U.S. Constitution is essentially a plan of government. Understanding how that plan functions and the values that it promotes is important in becoming a participating citizen. That understanding should include understanding of the economic implications of the Constitution. The U.S. Constitution provides a set of rules for the economy, including the protection of private property, the enforcement of contracts, and federal regulation of interstate commerce. These rules apply in the everyday lives of citizens.

Reasoning Perhaps the greatest contribution of the writers of the U.S. Constitution is that, in a time of great uncertainty, they established a framework for the efficient conduct of private economic activities. The writers defined the rules of the economic game. Those rules have resulted in a stable system that reduced economic uncertainty and protected individual economic freedom. The Constitution thus created incentives that encouraged people to come to the United States to improve their economic well being.

Concepts

Economic freedom
Private property
Incentives

Instructional Objectives

Students will

Recognize that the U.S. Constitution affects their everyday lives by providing personal freedoms related to private property, protection against discrimination, and individual economic freedom.

Lesson Description

This lesson involves students in a class discussion about how the U.S. Constitution affects their daily lives.

Time Required One class period

Materials

One copy for each student: Handout 4-2-1.

Procedure

1. Explain to the students that they have probably studied the U.S. Constitution several times during their school years. It is not likely, however, that the economic aspects of the Constitution have been stressed. Yet key economic ideas embodied in the Constitution affect us every day.

2. Distribute Handout 4-2-1. Read the quotations from young people to the class. Ask the class to complete the Handout.

3. Discuss the students' responses to the questions on Handout 4-2-1. Encourage them to add additional examples. Ask:

   A. What are your tentative career plans?

   (Encourage many different responses.)

   B. How do you think that your freedom to make career decisions might be related to the U.S. Constitution?

   (The Constitution gives government little direct role in individual career decisions. There is a great deal of individual economic freedom.)

   C. How can the U.S. government influence peoples' career choices by making new rules?

   (The government can offer incentives to encourage people to enter certain occupations — e.g., by providing scholarships for training nurses. Sometimes the government uses nonvoluntary approaches such as the military draft to bring people into national service.)

   D. Many American citizens immigrated to the United States from other countries. If your family immigrated here, why did they choose to come?

   (While motivations will vary, encourage students to mention the economic incentives that might have influenced (immigration — e.g., hope of finding improved job opportunities.)

   E. Many American families migrate to other parts of the nation. If your family has moved from one community to another, what were its reasons?

   (Again, motivations will vary. However, encourage students to name economic incentives that might have influenced their migration.)

   F. Equal opportunity or prevention of discrimination on the basis of religion, race, or sex is an important constitutional principle. How do these rules promote economic well being in our society?

   (By making it unconstitutional to discriminate on the basis of religion, race, or sex, govern-

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ment provides an incentive for business leaders and government officials to hire employees on the basis of their individual skills, knowledge, and attitudes. This benefits all because it will lead to a more efficient economy.)

Closure

Extend this lesson by reminding the students that the U.S. Constitution expresses many of the values that underlie our economic and political system. Freedom of choice and equal opportunity are two key values. Emphasize that the system is not perfect. Discrimination, of course, still affects many Americans. In addition, explain that the Constitution only guarantees that people should be treated justly. The stress on individual choice means that individuals may fail in their economic endeavors; there is no constitutional promise that everyone will succeed.

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Unit 4
Lesson 3
The Influence of Economic Problems on the Constitution

Introduction

Economics During the period of the Articles of Confederation, the U.S. faced serious economic problems. Fighting the Revolutionary War had resulted in serious war debts. The central government had no real power to tax. While Congress issued currency, so did several of the states. There were serious signs of tariff wars between the states. Finally, the government was weak militarily and susceptible to pressures from important powers like Great Britain and considerably weaker powers like the Barbary pirates. A stronger federal government was thought by leaders at that time to be necessary to bring about the stability to enable a free market to flourish.

Reasoning Why did the American economy develop differently from some others in the western hemisphere? Some differences may be explained by the role of government noted in the U.S. Constitution. People understood that the economic rules they established in the Constitution would influence citizens' choices and incentives. The immediate issue became, What kind of rules should the government establish to foster a stable environment for economic as well as political activity?

Concepts

Economic role of government
Market economy
Constitution

Instructional Objectives

Students will

1. Recognize the economic problems during the period of the Articles of Confederation, including problems related to national debt, weak currency, danger of state tariff battles, and lack of a strong military.

2. Recognize that the Constitution helped to create a stable environment that enabled a national market economy to develop.

Lesson Description

Students learn about the chief economic problems during the period of the U.S. Articles of Confederation and discuss how these problems resulted from a weak federal government.

Time Required

One class period

Materials

A transparency of Visual 4-3-1.
One copy for each student: Handout 4-3-1.

Procedure

1. Remind the class that in the period just after the American Revolution and before the approval of the U.S. Constitution, our central government was organized under the Articles of Confederation. Explain that the purpose of this lesson is to illustrate the economic problems that existed at the time of the Articles of Confederation — problems that led to establishing a stronger role for the central government.

2. Display a map of the western hemisphere to the class. Remind the students that the economic development of the United States has differed from that of many other nations in the western hemisphere. Yet, the other nations were similar to the U.S. in may ways. They and the U.S. were:

   - occupied by Native American groups.
   - colonized by the same group of European nations beginning in the 1500s.
   - very rich in natural resources.

3. Ask: Why do you think economic development in the United States differed from economic development in almost all other nations in this hemisphere? List ideas on the board.

   (While there are many important differences between Latin American nations and the United States, one key difference is that the United States developed a stable market economy that reduced the economic barriers between the 13 original states and created a national economy.)

4. Project Visual 4-3-1, "Economic Problems during the Articles of Confederation," and briefly explain the main points to the class. This diagram should help the students identify the key ideas when they read Handout 4-3-1.

5. Distribute Handout 4-3-1. Students will read the handout in order to identify the economic problems that faced the United States under the Articles of Confederation and to discuss the implications of various government actions.

6. Discuss the questions at the end of Handout 4-3-1.

   A. What might have happened if the United States, under the Articles of Confederation, had not paid its debts?

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(Foreign governments would have lost confidence in the U.S. government. The cost of investment to stimulate economic growth would increase.)

B. What might have happened if no way had been found for the central government to collect taxes?

(Operating the government would have been very difficult. Defaulting on debts would threaten credit from other nations.)

C. What might have happened if no currency had been accepted as having value?

(Manufacturers, merchants, and other business leaders would have been discouraged from starting new ventures. Without a common currency, trade would have been more costly. Consumers would have had little incentive to save paper money since it would quickly have become worthless. Reduced savings would have reduced the amount of money available for investment.)

D. What might have happened if tariff "wars" had broken out between the states?

(If states had placed tariffs on goods and services from other states, the prices of goods and services would have increased. States would have been discouraged from specializing in producing the goods and services they could provide most efficiently. Instead, they would have been tempted to become self-sufficient. The result would have been less wealth for everyone.

E. What might have happened if the U.S. had remained a weak military power?

(Freedom of U.S. shipping and other U.S. international economic and political rights would have continued to be threatened.)

Closure

Conclude the lesson by reviewing key points. The U.S. Constitution provided a set of economic ground rules that allowed a market economy to develop. Eliminating state trade barriers, paying debts, establishing an accepted currency, and providing for military protection are important steps to take in establishing a market. Many nations in the world now have written constitutions that are very similar to our own. For example, written constitutions are very common in many second and third world nations.

Ask: Why did development in the United States differ from development in other nations with similar constitutions? While the ability of the framers of the Constitution to fashion a truly remarkable and enduring plan cannot be disputed, we should remember that our Constitution works because Americans have a value structure that supports the essential liberties and processes that it expresses. It is individuals that make our Constitution work, not the other way around.

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Visual 4-3-1
Economic Problems Diagram

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Unit 4
Lesson 4
Why do We Want Government?
Public versus Private Goods

Introduction

Economics Most economic decisions in the United States and Canada are made in the marketplace — what is frequently referred to as the private sector. While many goods and services can be provided by the private sector, some are best provided by government. Moreover, some goods and services are provided by the public and the private sectors. Private goods and services are ones that can only be consumed by one individual at a time. Public goods and services are ones that can be consumed jointly at no additional cost. Two concepts that explain which goods and services are best provided by government are non-exclusion and shared consumption. Non-exclusion means that it is difficult to exclude non-payers from receiving the benefit of a good or service. Shared consumption means that the consumption of a good or service by one consumer does not reduce the benefit to other consumers.

Reasoning The ideas of non-exclusion and shared consumption are at the heart of the economic system. When people can obtain a good or service whether they pay for it or not, they have less incentive to pay. If consumers have no incentive to pay the costs, producers will have little incentive to provide the benefits. As a result, such goods and services will not be produced despite the fact that everyone wants them. This explains why the role of government is so important. Government can provide goods and services when it is difficult to exclude non-payers and when the product or service involves shared consumption. Through taxation, government can require all citizens to pay for their share so no one gets a "free" good or service. For example, police protection is desired by everyone. However, because it is difficult to exclude people from the benefits of police protection, government supplies the service to everyone, and everyone pays for it through taxation.

Concepts

Public good
Private good
Non-exclusion
Shared consumption

Instructional Objectives

Students will

1. Recognize the role government performs in the economy by producing goods and services for citizens.
2. Recognize that goods and services will not be produced by private parties unless producers have sufficient incentive to produce and consumers have sufficient incentive to pay.
3. Classify goods and services as examples of private or public, based on the criteria of non-exclusion and shared consumption.

Lesson Description

Students discuss the role of government in the economy. The lesson concludes with a small group classification activity.

Time Required

One class period

Materials

One copy for each student: Handout 4-4-1.

Procedure

1. Explain that the purpose of this lesson is to show why government plays an important role in producing particular goods and services.
2. Tell the students to imagine that a classmate announces that he or she is interested in being elected to public office. Ask: What do you think people might say about that choice? List student remarks on the board. Encourage students to note negative (politicians are dishonest so they are not respected) as well as positive characteristics (maybe he or she will reduce the drug problem) associated with going into politics.
3. Remark to the group that Americans tend to have a love-hate relationship with their government. Distribute Handout 4-4-1. Read "Part 1: We Love and Hate It" to the class. Invite the students to suggest additional examples of how we love and hate government. Two more examples are: we want to have police protection but we dislike being stopped for speeding; we want to have at least a minimum of support for the poor, yet we criticize the welfare system.
4. Ask the students to read the next section of Handout 4-4-1 to learn why government produces some types of goods and services. Ask:

   A. What is the public sector?

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B. What is the private sector?

(The marketplace)

C. Why does government tend to produce certain public goods and services?

(There are some goods and services that individuals wish to have, but the incentives for people to produce these goods and services may be low.)

D. What does non-exclusion mean?

(It is difficult to exclude non-payers from receiving a good or service.)

E. What is shared consumption?

(One person's consumption of the good or service does not reduce its usefulness to others.)

5. Divide the class into small groups. Ask them to classify the examples in Part 3. The following is one type of classification:

A. Police	public	When police squads, for example, patrol a neighborhood, everyone benefits. It is difficult to exclude non-payers.
B. Flood control	public	It is difficult to exclude people living in a flood plain from the benefits of flood control. This is a good example of shared consumption.
C. Rock concerts	private	People who don't buy tickets can be excluded.
D. Elementary and secondary education	both	"Consumption" of education can also be freely shared. People can also be excluded from receiving an education. Because of the overall benefits to society of education, we have chosen not to exclude people from receiving an education at public schools.
E. Court system	public	Everyone benefits from our having a legal system. Our interest in maintaining stability by enforcing society's rules requires that no one be excluded from the legal system.
F. College education	both	Similar to point D above. However, society is willing to exclude some people from the benefits of a publicly-supported college education.
G. Super computers	private	Benefits from super computers may not be shared widely enough to justify public production.
H. Parks	public	Parks suggest a cloudy distinction between public and private services. It is difficult to exclude non-payers from the benefits of an open space. Moreover, parks provide a good example of shared consumption. While user fees are often imposed at parks, they do not cover all the costs.
I. Libraries	both	This is also similar to point D. While it would be easy to exclude non-payers from the services of libraries, the benefits of libraries can be easily shared.
J. Movie tickets	private	Non-payers are easily excluded.

Closure

Review the important role of government in the economy and the definitions of non-exclusion and shared consumption. Mention that the deregulation of the airlines in the United States has resulted in calls for a greater role for government in transportation. An extreme position would be that government should run the airlines. Ask: Is air travel best thought of as a private service, public service, or both? Most economists would argue that air transportation should be a private service because non-payers can be excluded from the benefits, and shared consumption is not likely (two consumers cannot share the same airplane seat).

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Unit 4
Lesson 5
Why Do They Run?

Introduction

Economics Public choice analysis is a relatively new and growing area of economic theory that strives to explain collective decision-making. Public choice theory rests on the idea that the factors influencing individual behavior in the private sector are similar to those influencing behavior in the public sector. For example, scarcity, competition, and incentives are key concepts in understanding political choices.

Reasoning Perhaps the basic point of public choice theory is that individual behavior in the political system is motivated by incentives similar to those motivating other forms of economic behavior. Thus, political leaders economize by measuring marginal costs against marginal benefits as they make decisions. Because incentives influence political leaders, we can forecast the actions that leaders might take. Given the predisposition for some young people to become unduly cynical, you should note that the idea that individual political behavior is guided by incentives should not be interpreted to mean that politicians act only in accordance with obvious monetary or materialistic incentives. In fact, there is evidence that politicians are motivated by many different incentives that might include fulfilling a sense of community service.

Concepts

Political incentives
Forecasting political behavior
Political competition

Instructional Objectives

Students will
1. Identify incentives that may guide the actions of political leaders.

2. Recognize that competition exists in the political system.

Lesson Description

Students analyze behavior in the economic and in the political systems, noting similarities and differences.

Time Required One class period

Materials

One copy for each student: Handout 4-5-1.

Procedure

1. Explain that the purpose of this lesson is to examine and understand the actions of political leaders.

2. Remind the students that economists explain individual behavior by examining the importance of incentives. When facing a choice, individuals act in a predictable way after assessing the marginal costs and the marginal benefits. Explain that this lesson stresses the idea that political leaders, like others, act according to incentives.

3. Ask: Why do some students volunteer to run for elective offices in school? What incentives might influence them? List their responses on the board.

   (Students who seek office in high school may enjoy the recognition it brings from other students, be seeking a credential that might help them get into college, want to further a particular student interest such as improving the student parking lot, etc.)

4. Distribute Handout 4-5-1. Ask the students to read the situations and to identify the incentives that might motivate people to seek political office.

5. Discuss student responses to the questions on Handout 4-5-1.

   A. What incentives do you think would encourage Barbara Birch to run for re-election to Congress?

      (Prestige of holding national office; recognition of her work by others; promoting environmental protection, an issue of deep personal concern; enjoying holding political power; desire to serve the people in her district.)

   B. How did she encounter competition in the political process?

      (Competition from other representatives for powerful committee assignments and from the lawyer in her district who may challenge her in the fall.)

   C. Do you predict that Representative Birch will seek re-election?

      (It appears that the benefits of holding office clearly outweigh the costs. It seems reasonable to conclude that she would seek re-election in spite of the threat of competition.)

   D. What might be some incentives for Sam McHenry to seek election to the school board?

      (Desire to serve the community; concern about having a good education for his children; concern about high taxes.)

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E. In what ways did Sam encounter political competition?

(Threat of competition from Jean.)

F. Do you predict that Sam will run for school board?

(The benefits to Sam seem to outweigh the costs.)

G. What might encourage Tom Jackson to run?

(His interest in politics.)

H. What might discourage Tom from running?

(Little chance of winning; election would mean time away from his family and his computer business.)

I. What do you predict he will do?

(It appears that the costs of running outweigh the benefits.)

6. Invite the students to compare the incentives of business leaders and political leaders. Ask:

A. How does the behavior of people who go into politics seem to be similar to the behavior of people who go into business?

(Both business leaders and political leaders are motivated by incentives.)

B. How might the incentives of political leaders be different from the incentives of people who go into business?

(Monetary incentives might be less important for political leaders. While one would expect wide variance in individual motivations, we might anticipate that political leaders would be more motivated by prestige, power, and interest in public service than people in business would be.)

Closure

Conclude the lesson by noting that incentives are important in predicting the behavior of people in public and private life. In both sectors, people seek scarce rewards in a competitive environment.

Invite the students to imagine that their local community is finding it impossible to find someone willing to run for mayor: How could the office of mayor be changed to attract more candidates?

(Offer increased pay; provide more control over key departments like the police department; enhance recognition by having the mayor host special city events; strengthen the mayor's power — e.g., by allowing the mayor to veto actions of the city council; offer opportunities to travel to national conferences of mayors.)

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Unit 4
Lesson 6
What is a Fair Tax?

Introduction

Economics Federal, state and local governments depend primarily on different types of taxes and, in return, provide different types of government services. The different types of taxes imposed by governments have different advantages and disadvantages. Economists have attempted to identify criteria for a fair tax. Four criteria are commonly noted: ability to pay, efficiency, simplicity, and benefits derived (see Handout 4-6-1 for explanations of these criteria). It is generally agreed that people with equal amounts of income or wealth should pay equal taxes. Based on ability to pay, taxes can be divided into three types: proportional taxes, progressive taxes, and regressive taxes.

Reasoning Governments depend on taxes for revenue. While most people agree that government is essential, they do not like to pay taxes. Two reasons are frequently cited. First, government has the authority to set rules for the economic system. Since we have a system of laws, government is allowed to use coercion to enforce the rules. Since the exchange of taxes for government services is not voluntary, it may not be of equal benefit to all taxpayers. Second, the nature of the taxes diminishes the link between payment and consumption. In many cases, individuals pay their taxes and yet may not see much direct benefit from their payment. In other words, the cost is obvious but the benefits are not.

Concepts

Federal taxes
State and local taxes
Federal services
State and local services
Criteria for judging a fair tax: ability to pay, efficiency, simplicity, and benefits received.

Instructional Objectives

Students will

1. Identify the principal taxes and services provided by the federal, local, and state governments.

2. Recognize reasons why people might dislike paying taxes, including government coercion and the diminished link between payment and consumption.

3. Identify and apply criteria for judging what constitutes a fair tax, including ability to pay, efficiency, simplicity, and benefits received.

Lesson Description

Students examine visuals to learn the types of taxes and services provided by federal, state and local governments.

Time Required

Two class periods

Materials

One transparency each of Visuals 4-6-1, 4-6-2, and 4-6-3.
One copy for each student: Handout 4-6-1.

Procedure

1. Explain that the purpose of this lesson is to identify the different taxes that we pay, and to begin to identify what constitutes a fair tax.

2. Remind the group that Americans tend to have a love and hate relationship with government. On the one hand, communities take pride in having good schools, well maintained freeways, efficient mass transit, and a strong military. On the other hand, most Americans dislike paying the taxes needed to pay for these benefits.

3. Remind the students that individuals pay many kinds of taxes and that different levels of government depend on different taxes. Display Visuals 4-6-1 and 4-6-2 to the class. Ask:

   A. What are the most important taxes collected by the U.S. government?

      (Personal income tax and Social Security tax)

   B. How are federal tax dollars used?

      (Social Security, national defense, interest on the debt)

   C. What are the most important types of taxes collected by local and state governments?

      (Sales taxes, property taxes, personal income taxes)

   D. How are local and state tax dollars used?

      (Education, health and welfare, transportation)

4. Ask: Why do you think that people dislike paying taxes? List student ideas on the board. Accept any plausible response.

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5. Display Visual 4-6-3. Explain the two key reasons why people might resist paying taxes: People may dislike being coerced to pay their taxes; people may not see the benefits they receive when they pay taxes.

6. Distribute Handout 4-6-1. Ask the students to read Part 1 to identify criteria for assessing a fair tax, including ability to pay, efficiency, simplicity, and benefits received. Discuss these criteria to check for understanding.

7. Direct the attention of the class to Part 2 of Handout 4-6-1. Ask them to read the directions about how to apply the criteria in the chart. Do the driver's license example together. (See chart in Procedure 8.)

8. Divide the class into small groups and ask them to complete Part 2 of Handout 4-6-1. After the groups have completed their work, ask them to share their results. Opinions may vary. Encourage students to reason clearly as they explain their judgements. The following is a sample analysis.

	Ability to Pay	Efficient	Simple	Benefits Received
1. Drivers license fee (A fixed amount for each driver.)	-	+	+	+
2. Personal income tax (A percentage of each person's taxable income.)	+	+	-	-
3. Social Security tax (A percentage of wages and salaries up to a limit.)	-	-	+	+
4. Sales tax (A percentage of the pre-tax retail price of covered products.)	-	+	+	-
5. Property tax (A percentage of the property's value.)	+	-	-	+

Closure

Review key ideas with the class. Ask:

A. What is the main tax used by the federal government?

(Personal income tax)

B. What two primary services are provided by the federal government?

(Social Security and national defense)

C. What are the primary services provided by local and state governments?

(Education and transportation)

D. Why do people dislike paying taxes?

(Government coercion; diminished line between payment and consumption; the cost is obvious but the benefit is not)

E. What do you think is the most important criterion for deciding what is a fair tax?

(Encourage students to present reasons for any of the following: ability to pay, efficiency, simplicity, benefits received)

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Visual 4-6-1
Federal Taxes and Spending, 1986

The Federal Tax Dollar	
Personal income tax	43¢
Social Security and related taxes	40¢
Corporate income tax	10¢
Excise taxes	4¢
Customs duties	2¢
Other taxes and fees	1¢

The Federal Spending Dollar (Includes grants to state and local governments for some programs)	
Social Security and related benefits including Medicare	41¢
National defense	27¢
Interest on debt	13¢
Health and welfare	5¢
Transportation	3¢
Agriculture	3¢
Education and training	3¢
All other	5¢

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Visual 4-6-2
State and Local Taxes and Spending, 1985

The State and Local Tax Dollar (Does not include federal grants)	
Sales taxes	31¢
Property taxes	25¢
Personal income taxes	17¢
Corporate income taxes	5¢
All other taxes and fees	22¢

The State and Local Spending Dollar	
Education	39¢
Health and welfare	25¢
Transportation	10¢
Civilian safety	9¢
Administration	6¢
All other programs	11¢

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Visual 4-6-3
Why do People Dislike Paying Taxes?

1. *Government can coerce people.*

   Most economic transactions depend on voluntary actions. Individuals analyze incentives and make decisions they think are in their own interest.

   Government has the exclusive right to coerce individuals to pay taxes. Individuals may choose not to pay taxes, but the cost in reduced freedom is very high.

2. *Government spending of tax dollars diminishes the link between payment and individual consumption.*

   Usually, when consumers make a purchase, they see a direct benefit from the goods and services they receive.

   When individuals pay taxes, the benefits (e.g., national defense or cancer research) are often delayed, indirect, or spread so thinly that individuals may see little benefit for themselves.

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Unit 4
Lesson 7
Can Taxes Be Incentives?

Introduction

Economics Several different types of taxes and fees are imposed by different levels of government. The purpose of imposing these taxes is to generate revenue to pay for goods and services provided by government.

Reasoning Taxes are a cost. As such, they influence people's behavior in predictable ways. Changing the types of taxes or the tax level will encourage certain types of behavior and discourage others. For example, increasing or decreasing taxes influences people's behavior by encouraging or discouraging the use of substitutes for goods and services which are taxed.

Concepts

Taxes
Incentives
Forecasting
Substitutes

Instructional Objectives

Students will

1. Recognize that governments impose many different types of taxes and fees in order to collect revenue.
2. Recognize that taxes are incentives or disincentives that influence people's behavior.
3. Predict how people will respond when the incentive structure is changed by tax changes.

Lesson Description

Students work in pairs to predict how changes in taxes will change people's behavior.

Time Required

One class period

Materials

One copy for each student: Handout 4-7-1.

Procedure

1. Explain that the purpose of this lesson is to analyze the effects of taxes on individual behavior.
2. Explain that governments have created many ingenious ways of raising revenue. The most common are taxes on sales, income, and property; fees and licenses also are important. Whenever government imposes a new tax or changes an old one, people may change their behavior.
3. Distribute Handout 4-7-1. Read the introductory paragraphs to the students. Emphasize that taxes are incentives and that changes in taxes may encourage people to substitute one action for another.
4. Ask the students to predict how individuals might respond to Situation #1. Some possible responses appear below.

   Situation #1 The U.S. increases the income tax by 25 percent for all income groups. How might individuals respond?

   People would be discouraged from earning income. They might begin to substitute more leisure time for work time.

   People would be encouraged to hide their income.

   People would be encouraged to cheat on paying their taxes.

5. Ask the students to work in pairs and to write their predictions for each of the remaining four situations. The following are some sample predictions:

   Situation #2 Your state raises the fee for a driver's license to $500 per person. How might individuals respond?

   People would be discouraged from driving. They might begin to substitute the use of mass transit or car pools.

   People would be encouraged to substitute other vehicles that do not require a car driver's license. In some states, for example, there are special licenses for operating motorcycles.

   People would be encouraged to drive without a license.

   Young people would be discouraged from getting driver's licenses.

   Situation #3 Complaints are increasing every year about tourists overcrowding the U.S. National Parks. The federal government increases the national park camping fee to $25. How might individuals respond?

   People would be encouraged to substitute visits to private, state, or county parks for visits to national parks.

   People would be encouraged to substitute overnight stays in motels for stays in national parks.

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People would be encouraged to enter parks without permits and substitute the risk of being caught for paying the increased fee.

Situation #4 Freeways are very busy and slow during morning and evening rush hours. The state government decides to make the freeways "tollways" during the peak hours from 7:00 a.m. until 8:30 a.m. and from 4:00 p.m. until 5:30 p.m. by imposing a $3.50 fee per car at each entrance ramp along the most-traveled 10 mile stretch of freeway. How might individuals respond?

People would be encouraged to re-arrange work schedules so they could travel at non-peak hours.

People would be encouraged to substitute mass transit and car pools for the increased fee.

People would be encouraged to enter the freeway outside the 10 mile toll zone.

Situation #5 The federal government, in order to reduce the federal deficit, no longer allows homeowners to deduct home mortgage interest from their taxable income. How might individuals respond?

People would be discouraged from keeping or purchasing homes.

People would be encouraged to seek other ways to "shelter" their taxable income.

People would be encouraged to seek rented apartments as substitutes for owned homes.

6. Discuss the students' predictions in the whole group.

Closure

Remind the class that taxes are valuable sources of government revenue and that they also create incentives that influence behavior.

Ask them to imagine that the student parking lot is overcrowded. The student council and the principal decide that a $15 fee should be charged each semester to all students who want to park a car in the lot. How might some individuals respond? Possible answers:

Some students might substitute riding the school bus or walking to school for the convenience of using a car.

Some students might substitute car pools, rides with parents, bicycles, motorcycles, or the use of mass transit.

Students who place a high value on the convenience of parking in the school lot, perhaps because of an after school job, would probably pay the fee.

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Unit 4
Lesson 8
The Economics of Special Interest Groups

Introduction

Economics Special interest groups are able to have a substantial impact on the political system. Such groups can provide valuable services to individuals and to elected officials. They also can generate substantial benefits to a small minority while imposing a small cost on many other people. This can happen because the costs of a particular program may be spread widely. Voters may not notice the small increased cost to them and therefore may not take the time to study the matter in order to hold their elected officials more accountable.

Reasoning Elected officials, like other people, respond to incentives. Being re-elected is often an important incentive to government leaders. Re-election depends on earning votes, a scarce "good." This means that elected officials have a strong incentive to work on behalf of special interest groups that they think can be helpful in finding votes at the next election. This may occur even if the particular program they put into effect is economically inefficient.

Concepts

Interest group
Incentives

Instructional Objectives

Students will

1. Recognize the diverse nature of interest groups.
2. Identify the services provided by interest groups to individuals and to government leaders.
3. Analyze situations to identify how incentives might influence the behavior of public officials.

Lesson Description

Students learn about the diverse nature of interest groups and read examples of how incentives influence the actions of elected officials.

Time Required One class period

Materials

One transparency each of Visuals 4-8-1 and 4-8-2.
One copy for each student: Handout 4-8-1.

Procedure

1. Ask the students if they have sometimes wondered: Why don't politicians only pass laws that benefit the whole nation? Why do they sometimes pass programs that cost everyone but benefit only a few? Explain that the purpose of this lesson is to consider the reasons why special interest groups are able to receive special favors from government leaders.

2. Tell the class that many individuals belong to special interest groups. Display Visual 4-8-1. Explain that this list shows just a few of the thousands of interest groups in the United States. For example, about 4800 organizations and individuals are registered as lobbyists in Washington, D.C.

3. Explain to the students that special interest groups often have a bad reputation. However, it may be true that special interest groups offer valuable services to society. Ask:

   A. What incentives might interest groups offer to individuals?

   B. What advantages might interest groups offer to elected officials? Encourage many responses.

4. Display Visual 4-8-2, which mentions some reasons why elected officials and citizens may encourage the formation of interest groups.

5. Explain that there are times when the political process tends to work in favor of special interest groups, even when their programs are inefficient or work against the public interest.

6. Distribute Handout 4-8-1. Ask the students to read Part 1 about the problem in Twin Lakes. To help them analyze the problem, they should answer the questions at the end of the reading. Afterwards, ask:

   A. What is the problem facing the citizens of Twin Lakes?

   (Danger of the Muskies moving.)

   B. What was the plan that local and state leaders in government, business, and labor had decided upon?

   (To build a new stadium instead of the industrial park.)

   C. Why did the local and state leaders want help from the federal government?

   (They needed an additional $15 million.)

   D. Who will benefit from the construction of the new stadium?

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(People in local and state business, labor, and government all will benefit. The members of Congress from the state will benefit if their constituents know they helped deliver the stadium.)

E. Are people in other states and communities likely to derive much benefit from the construction of the new stadium?

(No, unless they visit Twin Lake or watch the Muskies on TV.)

F. If you knew that your taxes would increase by a few cents so the people in Twin Lakes could have a stadium, would you protest the action to your members of Congress?

(No, it probably would not be worth your effort.)

G. What do you predict will happen in this case?

(It is reasonable to think that Twin Lakes will get the federal money. In this case, the cost per taxpayer is small and is spread widely, while the benefits are great to the people in Twin Lakes. The large number of state and local voters involved provides a strong incentive for the members of Congress from the state to work hard to deliver the federal funds.)

7. Ask the students to read the examples in Part 2 and to identify the incentives in each case. Discuss the questions at the end of each section with the class. Suggested responses are provided below.

A. The people in Los Angeles want federal funding to help pay for a modern subway system. Who will benefit from the construction of the new subway?

(Interest groups in Los Angeles, including labor, business, and government.)

B. Will people in other states and communities derive much benefit?

(No, unless they visit Los Angeles and use the subway.)

C. What do you predict will happen?

(There is a large number of voters, represented by the interest groups. They would benefit a great deal and the cost would be spread widely. All this suggests that the members of Congress from Los Angeles would work hard to obtain the necessary federal dollars.)

D. The people in Townsend, Wisconsin (population about 500) want a new federal dam and reservoir constructed. Who will benefit from the construction of the new dam and reservoir?

(Business and labor interests in Townsend.)

E. Will people in other states and communities benefit?

(No, unless they vacation there.)

F. What do you predict will happen?

(It is likely that the effort will fail. Even though this project is of intense interest to groups in Townsend and the costs would be spread widely, the number of voters is so small that members of Congress would have little reason to work hard to deliver the federal funding.)

Closure

Conclude the lesson by reminding the students that incentives influence behavior. Interest groups form because they satisfy the wants of individual citizens and of people in government. However, at times, interest groups contribute to an incentive structure that results in the passage of inefficient economic policies.

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Visual 4-8-1
Types of Interest Groups

Thousands of organizations can be considered as examples of special interest groups. The following is a brief sampling.

1. *Business and Corporations*
   Gulf Oil Corporation
   McDonald's
   National Football League

2. *Labor Unions*
   AFL-CIO
   American Federation of Teachers
   United Mine Workers

3. *Trade Associations*
   U.S. Chamber of Commerce
   American Gas Association
   American Soybean Association
   American Farm Bureau

4. *Professional Organizations*
   American Medical Association
   American Society of Personnel Administrators
   National Council for the Social Studies

5. *Political Organizations*
   National Organization for Women
   National Association for the Advancement of Colored People
   National Rifle Association
   National Wildlife Association

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Visual 4-8-2
Why do We Have Special Interest Groups?

Advantages to Elected Officials

Information: In every session of Congress, more than 20,000 pieces of legislation are introduced. The subjects vary widely: national defense, energy, environment, health, welfare, jobs, education and many others. Special interest groups provide officials with valuable information on complex issues.

Ideas: Special interest groups usually understand how complex issues will affect their members and others. They can often alert politicians to alternative solutions to complex problems.

Advantages to Citizens

Diverse Interests: Americans are diverse people, with many interests. There are over 85 different religions in the U.S., numerous ethnic groups, wealthy people, middle income people, poor people, and people who work in agriculture, manufacturing, education, health care, and many other fields. Establishing an organization is one way people can represent their particular interests to the broader society.

Government Related Interests: As the role of government has expanded, many Americans have found that government policy may directly affect them. For example, veterans' groups are directly interested in the benefits provided to them by the government; businesses which compete with foreign companies are interested in knowing what imports are allowed and whether they will be taxed; civil rights groups are interested in passing laws to reduce discrimination.

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Unit 4
Lesson 9
Role of Government: Social Regulation of Business

Introduction

Economics A market economy strives to provide high quality goods and services at the lowest possible prices. When there are problems in the market, the government often intervenes in an attempt to correct the situation. The results of government intervention can influence productivity, costs and prices.

Reasoning Government regulation is an example of government using its power to establish the rules of the economy in order to influence the production of goods and services. There are, of course, costs and benefits associated with government regulation. The key question is whether the new rules result in greater or less production.

Concepts

Government regulation

Instructional Objectives

Students will

1. Observe a demonstration of the effects of government regulation on productivity, producer cost, and prices.
2. Judge the advantages and disadvantages of government regulation.

Lesson Description

Students observe a demonstration of the effect of government regulation in the market. They discuss the costs and benefits of government regulation.

Time Required

One class period

Materials

200 sheets of paper in four colors, sorted into stacks by color, 50 sheets per stack.
One stapler.
2 pairs of bulky gloves.
A transparency of Visual 4-9-1.

Procedure

1. Explain that government rules may determine how the economy operates. These rules frequently are regulations that apply to particular industries. Tell the class that the purpose of this lesson is to demonstrate some effects of government regulation.
2. Explain that you are establishing a "firm" which produces packets of papers. Each packet has four sheets of paper, one sheet of each color. Stack four sets of paper, 50 sheets per stack, on a table at the front of the room with a loaded stapler at one end.
3. Ask two students to be the firm's workers. Assign one student the task of collating the sets of four differently colored papers and another the task of straightening and stapling the papers into a packet. These stapled packets are the output of the firm.
4. Have the students produce as many packets as possible in one minute. Display Visual 4-9-1, and record the results on the line corresponding to "No Regulation." A completed, sample table appears below. This table assumes total costs equal $120.

Situation	Output	Productivity (output divided by 2 workers)	Per unit cost (total cost of $120 divided by output)
No regulation	24	12.0	$ 5.00
With OSHA regulation	20	10.0	$ 6.00
With OSHA & CPSC regulation	15	7.5	$ 8.00
With all regulations	12	6.0	$10.00

5. Read the following announcement to the class: "The Occupational Safety and Health Administration (OSHA), a federal regulatory agency, is alarmed at the rapidly increasing rate of paper cuts to workers' hands in paper stacking firms. OSHA now requires that all workers in paper packet firms wear protective gloves." Give both workers a pair of gloves.
6. Repeat another one minute production round. Record the results on Visual 4-9-1.
7. Read the following announcement to the class: "Studies by the Consumer Product Safety Commission (CPSC), a federal regulatory agency, have revealed that staples from paper stacks have been loosening and may injure consumers. The CPSC

Adapted from Curt L. Anderson and James F. Poe, "Consumer Interests and Regulation: Economic and Social," *Senior Economist*, National Council on Economic Education, Spring, 1988.

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now requires that all staples be placed parallel to and one-quarter inch from the left border and three-eighths inch from the top border. Haphazard stapling is no longer allowed."

8. Repeat another one minute production round with both OSHA and CPSC regulations in effect. Record the results on Visual 4-9-1.

9. Announce that, because of the increased federal regulation, the record-keeping of the firm has increased substantially. The federal government requires that reports which show compliance with government regulations be filed with the agencies involved four times per year. Management has decided that one of the workers must be reassigned from the production line for half the production period to write the reports. The remaining worker will have to do both jobs in the same amount of time.

10. Repeat another one minute production round. Record the results on Visual 4-9-1.

Closure

Discuss the results of the demonstration with the class. Ask:

A. What seems to be the effect of increased regulation?

(Output declines, productivity declines, costs per unit of output increase)

B. Who benefits from these kind of regulations?

(Consumers may feel safer and workers may suffer fewer injuries.)

C. What costs follow from these regulations?

(Because of increased unit cost of output, consumers will pay higher prices for goods they want. Businesses may face increased foreign competition from firms that are not required to meet such regulations and may eventually stop producing this product because foreign producers can sell at lower prices.)

D. Is this kind of regulation justified?

(It depends on the alternatives. Government regulation often has many costs, such as declines in productivity and increased prices to consumers. The question to be answered in each case is whether a less expensive way to achieve such goals as greater consumer safety or reduced worker injuries can be found.)

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Visual 4-9-1
Production and Regulation Demonstration

Situation	Output	Productivity per Worker (output divided by 2 workers)	Per Unit Cost (total cost of $120 divided by output)
No regulation			
With OSHA regulation			
With OSHA & CPSC regulation			
With all regulations			

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Unit 4
Lesson 10
The Economics of Voting

Introduction

Economics Why do so many voters stay away from the polls on election day? This is a puzzle to many people interested in the well-being of our democratic system. Economists try to explain this outcome. They suggest that voters are acting rationally in the sense that the costs associated with voting (such as advance registration, rearranging work schedules, getting to the polls, and gathering information on the candidates) appear to outweigh the benefits (influencing the outcome of an election or gaining the satisfaction of being a good citizen).

Reasoning In voting, as with other forms of human behavior, economists stress the incentives that might influence behavior. In fact, voters have an incentive to be rationally ignorant. The cost of obtaining detailed information about candidates (e.g., attending meetings, reading position papers) is so high that voters tend to depend on inexpensive forms of information about candidates such as using the media and talking to friends. If we favor encouraging higher rates of voter participation and voter knowledge of issues, we need to examine how to restructure the incentives at work in the voting process.

Concepts

Incentives
Rational ignorance

Instructional Objectives

Students will

1. Review the assumption that rules can influence people's choices and incentives; review how incentives influence behavior in predictable ways.
2. Recognize that voter turnout in the U.S. has been low in the twentieth century.
3. Identify costs and benefits associated with voting.
4. Suggest how incentives to vote might be reformulated to encourage broader voter participation.

Lesson Description

Students examine a visual to identify patterns of voter turnout in U.S. presidential elections. They analyze the costs and benefits of voting and discuss how people's voting behavior might be changed.

Time Required

One class period

Materials

One transparency each of Visuals 4-10-1, 4-10-2, 4-10-3, and 4-10-4.

Procedure

1. Review two key ideas students learned earlier to help them understand economic behavior. First, they learned that rules can influence people's choices and incentives. The rules contained in the U.S. Constitution, for example, enabled the United States to develop a market economy. Second, they learned how incentives can influence behavior in predictable ways. This principle was stressed in understanding why government produces public goods, how taxes can influence incentives, and the actions of elected officials and interest groups in passing legislation. The purpose of this lesson is to allow students to extend their understanding of these two ideas by studying the economics of voting.

2. Explain to the students that the level of voter turnout is often worrisome to people interested in preserving our democratic traditions. Display Visual 4-10-1. Ask:

   What seems to be the pattern of voter turnout in U.S. presidential elections?

   (The pattern shows the decline of voter turnout in the twentieth century. However, the apparent decline of voter turnout may be the result of a reduction in voter fraud. For example, until the turn of the century, it was easy for party organizations to encourage voters to vote more than once. You may wish to point out that the turnout for the 1988 presidential election was 50.16%.)

3. Display Visual 4-10-2. Ask:

   Which groups of people tend to vote less? Why might this be the case?

   (Students should recognize that people who do not have much "stake" in society, such as the young or the less educated, tend to vote less than others.)

4. Explain that the purpose of this lesson is to examine the reasons why voter turnout is low and to begin to identify incentives that would encourage more voters to show up at the polls on election day.

5. Ask: What do you think might be the costs and benefits of voting? List plausible student responses on the board.

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6. Display Visual 4-10-3. Explain the costs and benefits of voter participation presented there.

7. Explain to the students that many of the voters who do go to the polls are not very well informed about all the candidates or all the issues. Ask the students: What are the costs associated with obtaining information on the candidates? Stress that most of these costs involve the time spent in gathering information. List ideas on the board. The following are a few suggestions.

   Reading candidate position papers.

   Attending meetings at which candidates appear.

   Reading newspapers.

   Reading news magazines.

   Watching special TV news programs about elections and the issues.

8. Tell the students that the concept of *rational ignorance* is used to explain voter reluctance to gather much political information. Display Visual 4-10-4 to the class and discuss the definition it contains with the class.

Closure

Conclude the lesson by asking the students to apply what they have learned about incentives for voting. Explain that an important goal of our political system is to encourage voter participation. Explain that we can do that by changing the rules to reduce the costs or increase the benefits. Ask the students to imagine how we might reduce the costs of voting or increase the benefits. Ask the students to list as many ideas as they can. Place their suggestions on the board.

Ways of reducing the costs of voting might include:
1. Allowing voter registration at the polls on election day.

2. Developing electronic voting systems allowing people to vote from their homes.

3. Setting up voting booths at places of work.

4. Encouraging more civic groups to offer rides to the polls.

5. Holding elections on weekends.

6. Allowing voter registration by mail.

7. Reducing residency requirements for voters.

Ways of increasing benefits of voting might include:
1. Increasing the amount of education people receive. Greater formal education tends to build an individual's "stake" in society.

2. Encouraging more attractive candidates to run for elected office.

3. Experimenting with the direct election of the President.

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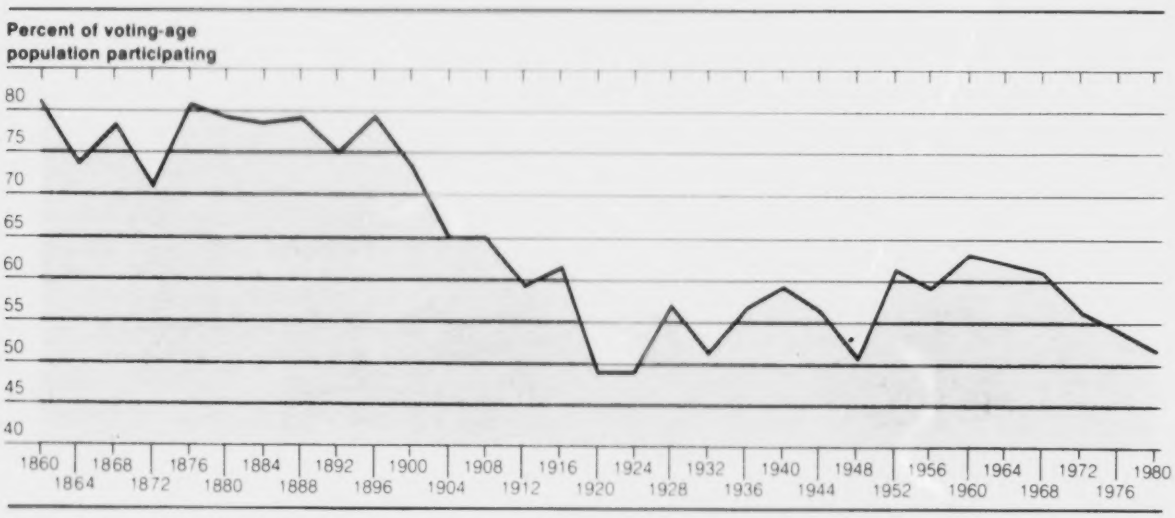
Visual 4-10-1
Voter Participation in Presidential Elections



Source: For years 1860–1928, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970*, Pt. 2, p. 1071; and for years 1932–1980, *Statistical Abstract of the United States, 1980*, p. 517.

Note: Several southern states did not participate in the 1864 and 1868 elections.

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Visual 4-10-2
Who Votes Less?

1. Young voters (people aged 18-20) have the lowest voter turnout of all age groups.

2. Nonwhites vote less than whites.

3. People with less education vote less than people with more education.

4. Unemployed people vote less than employed people.

5. People living in cities vote less than people in rural areas.

6. People living in the North and West vote more than people living in the South.

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Visual 4-10-3
Costs and Benefits of Voting

Costs of Voting

1. Voter registration: Many states require voters to register several weeks in advance of elections.

2. Time off from work: Elections are held on weekdays so many people need to re-arrange work schedules in order to vote.

3. Time preparing to vote: Gathering information about the candidates takes time.

4. Getting to the polls: Polls may be located in places that are not convenient for some people to get to.

5. Time in line: There is often a line of people waiting to vote at the poll.

Benefits of Voting

1. There is a chance that your vote will make a difference in the outcome of the election.

2. You will gain satisfaction from performing your duty as a citizen.

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Visual 4-10-4
Rational Ignorance

Rational ignorance: A decision not to obtain information about political issues or candidates because the costs of doing so outweigh the benefits.

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Unit 4
Lesson 11
Thinking Economically About the Environment

Introduction

Economics This lesson uses economic concepts to analyze environmental issues. First, the lesson explains why markets fail and how government can intervene to correct these market failures. Because of positive and negative externalities, government intervention is necessary if we are to have a clean environment. Government should act to raise the price and lower the output of goods and services that cause negative externalities such as pollution. Government achieves this goal by forcing businesses and consumers to pay more of the costs of production. Government should also subsidize the production of goods and services, such as education, that cause positive externalities.

However, this lesson goes beyond the traditional market failure analysis to explore some of the causes of government failure. Students analyze why government intervention often falls short of the standards citizens desire.

Reasoning This lesson stresses three economic premises. First, all choices involve costs. Government must consider the costs of pollution as well as the costs and benefits of pollution control if we are to effectively and efficiently clean up our environment.

Secondly, people respond to incentives in predictable ways. Incentives explain why pollution exists and offer insights on how to clean it up.

Finally, economic systems influence individual choices and incentives. By changing the rules of the system, government can restructure incentives and improve our record on pollution control. These new rules affect how people economize and thereby help to provide a cleaner environment.

Concepts

Market failure
Government failure
Externalities
Opportunity cost
Incentives
Economizing

Instructional Objectives

Students will

1. Define and give examples of negative and positive externalities.

2. Explain how private market activities can cause negative and positive externalities.

3. Explain how negative and positive externalities result in overproduction and underproduction of goods and services.

4. Explain why government intervention is necessary to reduce pollution.

5. Compare and contrast the economist's view of pollution with the environmentalist's view.

6. Analyze the effectiveness of government policies designed to correct the negative externalities associated with environmental damage.

Lesson Description

Students learn how government must take an active role in cleaning up our environment. Through reading and class discussion, students analyze both the costs of ignoring environmental damage and the benefits of cleaning up the environment. They see how restructuring incentives can change people's behavior. Finally, they analyze the effectiveness of policies designed to clean up the environment.

Time Required

Two class periods

Materials

One copy for each student: Handout 4-11-1, 4-11-2, and 4-11-3.
Optional — *Economics USA* Program 21, "Pollution: How Much Is a Clean Environment Worth?"

Procedure

1. Explain to students that they are going to learn why markets and government sometimes fail. Economists offer two insights: Markets can work and markets can fail. Political scientists also provide two insights: Government intervention can work and government intervention can fail.

2. Introduce students to positive and negative externalities. Explain that externalities occur when people who are not part of a market transaction bear some of the costs or receive some of the benefits of the transaction.

   The reason why businesses and consumers pollute the environment is that trying to clean up their pollution would increase their costs. By using the environment as a free dump, businesses can make greater profits and charge lower prices. Without government action, a company that did not pollute would have to charge higher prices. Consumers probably do not care if the business is a polluter; they look for the best product at the lowest price.

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The problem is that third parties pay part of the cost of production even though they don't receive the benefits. If government forces businesses to pay these costs, the price of the good or service becomes higher and the output lower. The trade-off is that we have cleaner air and water. Encourage the students to think of some goods and services which have negative externalities. Examples might include pollution from factories, farms, and cars; cigarette smoking; and drunk driving.

Also introduce external benefits or positive externalities. They occur when third parties receive benefits even though they paid none of the costs. If a home owner fixes up his or her house, property values in the whole neighborhood rise. Education is another example. Education not only improves the life and earnings of the student but also affects others. Educated people contribute to our nation's productivity, commit fewer crimes, and have better health than uneducated people.

The private market will not produce enough goods and services with positive externalities because the market considers only the private and not the public benefits. Government increases the production of goods and services that have positive externalities by subsidizing them. That is why we have public schools, public parks, and public health facilities.

3. Distribute Handout 4-11-1. Ask students to read it and answer the questions at the end.

4. Discuss the questions on Handout 4-11-1. The following are points to stress.

Question 1. Externalities occur when one person or group does something that affects other people without the usual costs or benefits. A negative externality harms third parties who do not receive the benefits of the market transaction. A positive externality benefits third parties who do not pay any of the costs of the market transaction.

Question 2. Polluting the Cuyahoga River, auto emissions, factory emissions, use of pesticides, and smoking cause negative externalities. Cleaning up the river, education, and health care cause positive externalities.

Question 3. Government may take action because not all the costs and benefits are considered in the transaction. Government may take action to raise prices and lower the production of goods and services with negative externalities. Government may take action to lower the prices and increase the production of goods and services with positive externalities.

Question 4. Education helps people become more productive. An educated person is more likely to get a job, to commit fewer crimes, and to have lower medical expenses than an uneducated person. Healthy people spread fewer diseases than sick people.

5. Distribute Handout 4-11-2 and ask the students to answer the questions. Discuss Plan A and Plan B. Explain that Plan A contains no incentives to recycle garbage after the 25% target is met. Plan B offers a continuous incentive to recycle garbage until a person has less than one can a week. The less ordinary garbage a person has, the lower the price of garbage collection. Plan B uses the price system to encourage people to recycle as much garbage as possible.

6. Show *Economics USA* Program 21, "Pollution: How Much Is a Clean Environment Worth?" This program, dealing with pollution's negative externalities, does a good job of defining the problem and showing the difficulties of government intervention. The first case study (dumping taconite tailings into Lake Superior) shows a clear negative externality; the second (enforcing the Clean Air Act in Los Angeles) shows that we have priorities besides clean air and that there are opportunity costs in fighting pollution; the final case study (banning leaded gasoline) shows how cost-benefit analysis can be used to measure the private and social costs of pollution.

7. Discuss the program. You might have students evaluate some of the methods used to fight pollution such as:
   - Banning activities that cause pollution.
   - Setting absolute standards.
   - Taxing pollution.
   - Using tax money to subsidize investment in pollution control equipment.

   The program shows both why government must take actions to control pollution and why those actions are sometimes too costly and ineffective.

8. Explain to the class why government regulation is sometimes ineffective. Among the reasons are:

   A. Special interests tend to have more power than ordinary citizens. This is not a conspiracy against the public. It occurs because concentrated special interests can benefit or be hurt by government regulations. They spend time and money to influence votes. In 1988, political action committees (PACs) spent 88% of their money on incumbent members of Congress, and 99% of these members were re-elected.

   Of course, the 1988 Presidential election showed people were very interested in the environment. Remember Boston Harbor. But how many voters will follow up on whether

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environmental laws, passed with great fanfare, are enforced?

B. Government may use less efficient and more costly methods to solve a problem than the private sector would. Because government does not have to make a profit or compete with other businesses, it has fewer incentives to be efficient.

C. Government officials are rational decision-makers who want to preserve their jobs. The more complex the regulations, the more officials are needed to enforce them.

D. Government may not have enough information to set reasonable standards. For example, pollution control standards may be too high to be enforceable. Then businesses get delays and exemptions, and the air is more polluted than if lower — but enforceable — standards were set.

9. Distribute Handout 4-11-3 and ask the students to answer the questions at the end.

10. Discuss the questions on Handout 4-11-3. Stress the following points.

Question 1. Environmentalists view pollution as a moral problem and as a "yes or no" question. One is either for or against pollution. Polluters are criminals that must be stopped. The cost of reducing pollution does not matter.

Economists view pollution as an externality problem and as a "more or less" question. People pollute because there are incentives to do so. These incentives must be changed to make the environment cleaner. People want a cleaner environment but at a reasonable cost. People also want consumer products and jobs. Decisions on pollution control must consider these painful trade-offs.

Question 2. Pollution occurs because some of the costs of production are shifted to third parties. Polluters use the air and water as a free dump. By making polluters pay more of the costs of production, pollution will be reduced. Of course, this raises the price of the goods and services produced. Government restructures the incentive system so we have fewer consumer products and more clean air and pure water.

Question 3. Taxing pollution creates incentives to clean up air and water if the cost of the clean-up is less than the tax. Businesses will continually search for new technology to save on their tax bills. Fixed standards are harder to enforce than tax laws. They create no incentives once the standards are met. They don't differentiate among firms which have the technology to meet the standards and those that don't. Almost all studies show that taxing pollution and selling licenses to pollute will clean up more air and water at a lower cost.

Question 4. Politicians, bureaucrats, and businesses benefit from the current system. The standards look tough but are hard to enforce. This keeps government officials employed. Politicians can tell the public they support tough environmental standards. Because the standards are "yes or no," businesses often get exemptions from enforcement.

Question 5. False. The quotation does not consider other goals besides clean air and water. Because their standard of living is lower, developing nations may want more food, clothing, and shelter and less clean air and water. The opportunity cost of clean air and water is higher. If developed countries are concerned with worldwide pollution, they might subsidize pollution control efforts and help developing countries improve their productivity.

Closure

Divide the class into groups of five. Have each group develop a policy to improve air quality by at least 25%. Have each group report to the class and justify its policy by showing that it will be effective and cost-efficient.

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Sample Test Items

Unit 4
The Role of Government in Economics

1. The main economic contribution of the writers of the U.S. Constitution is that they

   A. Announced that old debts would not be paid so that the new republic could get on with new business.

   *B. Established a stable system that allowed a market economy to develop.

   C. Protected states from trade across boundaries to encourage self-sufficiency.

   D. Approved funds to establish a system of national highways, canals, and other internal improvements.

2. The U.S. Constitution preserves liberty because

   *A. Americans believe the values expressed in it.

   B. The main rules of government are written down.

   C. The writers were flawless in their design of our system of government.

   D. The original document has been well preserved in the Great Hall of the National Archives Building in Washington, D.C.

3. Flood control is a good example of a public good because it is

   A. Attractive "pork barrel" legislation for elected officials.

   *B. Difficult to exclude non-payers from the benefits it provides.

   C. A "free good."

   D. Overseen by the Congress.

4. Elected officials and people in business

   A. Respond to incentives.

   B. Only make decisions which are in the public interest.

   C. Face competition.

   *D. Both A and C are true.

5. The main federal tax in the U.S. is the

   *A. Personal income tax.

   B. Social Security tax.

   C. Corporate income tax.

   D. Excise tax.

6. The main state and local tax in the U.S. is the

   A. Property tax.

   B. Personal income tax.

   *C. Sales tax.

   D. Corporate income tax.

7. The most expensive service provided by the U.S. federal government is

   A. National defense.

   B. Health and welfare.

   *C. Social Security and Related benefits.

   D. Transportation.

8. The most expensive service provided by state and local government in the U.S. is

   *A. Education.

   B. Transportation.

   C. Parks.

   D. Health and welfare.

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9. A fee charged to campers for the use of state parks does NOT fulfill the principle of

   *A. Ability to pay.

   B. Benefits received.

   C. Simplicity.

   D. Efficiency.

10. The student council at Adam Smith High School decided to charge a parking fee to help relieve overcrowding in the student parking lot. This is an example of using "taxes" as

   A. A regression.

   *B. An incentive.

   C. Rental property.

   D. A feudal reward.

11. Over bagels and cream cheese at the Bagel Nosh Deli, Amy, the owner, asks Hilda, an attorney, which candidate Amy should vote for in the upcoming race for county judge. This is probably a good case of

   A. Hilda's insider trading.

   *B. Amy's rational ignorance.

   C. Political intelligence.

   D. Interest group influence.

12. The age group with the lowest voter turnout in the U.S. is

   *A. 18-25 years.

   B. 26-35 years.

   C. 45-55 years.

   D. over 65 years.

13. Interest groups can often cause inefficient programs to be passed because

   A. Re-election is a strong incentive for government officials.

   B. Costs are usually spread out.

   C. Politicians are corrupt.

   *D. Both A and B.

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Sample Essay Questions: Conversations About Economics

The following are essay questions designed for Unit 4. Students should be asked to read the items and evaluate the arguments of each speaker. In evaluating the arguments, they should ask the following questions:

- Is the speaker using economic or non-economic reasoning?

- Do you agree or disagree with the argument?

I. The Right to Pollute

Mary Donovan Our environment is a mess! Harbors are full of garbage; acid rain falls from the sky and kills our trees and lakes; and ozone hangs over our cities.

Matt Kowalski Economists say good ways to clean the environment are taxing pollution and selling companies licenses to pollute.

Sam Washington Are you kidding? How could a tax on pollution solve the problem? This would give rich corporations the right to pollute and make the problem even worse.

Rich Shultz Economists show their true colors when they claim there's an "optimal" quantity of pollution. The only optimal amount of pollution is zero.

II. The Benefits and Costs of Voting

Barb Graves It's a national disgrace that so few Americans vote. In the 1988 Presidential election, a record number of Americans failed to vote. The lowest percentage of eligible voters in a Presidential election ever actually voted. In all other democratic countries, larger percentages of eligible voters vote than in the U.S.

Marcia McConnell We don't provide the right incentives to vote. The costs are too high. You must register before the election and vote on a work day. We vote for so many offices that it takes a lot of research to make an informed choice. Did you know that in many countries you can register on the day of the election and that election day is a national holiday?

Ellen O'Keefe I think the problem is that there are too few benefits to voting. It doesn't matter who's elected. The politicians ignore the people — they march to the tune of special interest groups. The special interests give big contributions to elected officials, and these contributions help assure their re-election. Did you know that only about 1% of the incumbent members of the House of Representatives were defeated in 1988?

III. Save Our National Parks

Cindy Murray Although wildfires blackened more than one-third of Yellowstone National Park in 1988, people are the real threat to our national park system. Special interests have been allowed to explore for oil and minerals, cut down trees until the ground is bare, and build tourist traps along park boundaries. Tourists are overwhelming the park environment with their carbon monoxide fumes, garbage, and general lack of respect toward nature.

Jennifer Williams the government should charge higher entrance fees to limit the number of tourists and provide much needed money to improve our parks.

Jim Garrity Hold on! That's an elitist idea! The parks belong to all the people, not just those who can afford to pay a fee. A government that spends over a trillion dollars a year can afford a few hundred million more for parks.

Sally Martin Where would you find the money? Are you going to cut other programs or just increase the budget deficit? Besides, poor people don't visit the parks anyway because the biggest expense is getting to remote parks. Stand by a national park entrance and witness the migration of $40,000 campers pulled by $25,000 minivans.

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Unit 4
Answers For Teachers and Discussion Points on Sample Essay Questions

I. The Right to Pollute

Pollution is an example of a market failure. Because pollution creates external costs, government may move to prevent it. Unfortunately, government policies have been expensive and sometimes ineffective. The answers to this case study are explored in detail in Lesson 11 of this unit.

Mary Donovan and Matt Kowalski correctly describe the problem. Sam Washington's and Rich Shultz's criticisms of an economic approach to pollution control are wrong. By taxing or selling the right to pollute, government creates incentives to clean up the environment. Mandatory standards do not encourage businesses that meet the standards to further reduce pollution. If pollution is taxed, businesses will work to avoid the tax by cleaning up their pollution emissions.

Cleaning up the environment has both costs and benefits. Everyone favors clean air and water, but what if the clean-up destroys your job? Like any other economic decision, there are diminishing returns to cleaning up pollution. It may cost more to move from 98% clean air to 99% clean air than it does to clean the first 98%. Therefore, costs and benefits must be considered when determining how much clean air we want.

II. The Benefits and Costs of Voting

All three speakers understand that if people don't vote, they must believe that the costs of voting outweigh the benefits. Voter turnout would be improved by increasing the incentives to vote.

Voter turnout would increase if costs were lowered. Some people argue, however, that we shouldn't lower the costs of voting. A person who is deterred by the fairly low costs of voting may not take the time to make an informed choice.

It is also true that concentrated special interests usually prevail over the diffused power of the public interest. However, when the public really cares about an issue, politicians pay attention. People who complain about the democratic process often do not try to use it.

III. Save Our National Parks

This case study illustrates what economists call the tragedy of the commons. If we own something collectively, we may treat it as if no one owned it. Government then must control its use.

If people are destroying our national parks, the government should increase the cost of engaging in that kind of behavior. It could, for example, levy big fines against park abusers.

Increasing the cost of using parks would limit the number of people using them. This would increase efficiency, but it would decrease equity. Poor people would be less likely to use the parks. If prices are not raised, some other method must be employed to ration park use. Park officials could use a lottery or a first come-first serviced method of allocation. These rationing methods are inefficient. At any rate, they must create incentives for more efficient park use.

The question of whether minerals should be mined in parks is another cost-benefit question. There are benefits to beautiful parks. Are these benefits greater than the opportunity costs of lost mineral exploration? This issue is discussed in detail in Program 1 of *Economics USA*. The question in that program is whether Alaskan lands should be used as a park or explored for oil and other minerals.

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Unit 5
Macroeconomics

	Letter to the *Capstone* Teacher
Lesson 1	Money Isn't Everything
Lesson 2	What Do We Want From Our Economy?
Lesson 3	An Economy Never Sleeps
Lesson 4	If It Doesn't Work — Fix It
Lesson 5	Macro-mysteries
Test	Sample Test Items

"Economic systems are established to accomplish whatever people believe is important. Individual choice always matters in economics."

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Unit 5
Letter to the *Capstone* Teacher

Dear *Capstone* Teacher:

Economists are quoted and their advice is sought most often in macroeconomic areas. In what direction is the economy going? How can we bring down the rate of inflation? How can we lower the unemployment rate? It is ironic that the advice of economists is sought most frequently in areas where they have their greatest disagreements. Macroeconomic consensus has broken down during the last 20 years. The former Keynesian consensus is being challenged by monetarism and the theory of rational expectations. In spite of this intellectual ferment, economists agree on macroeconomic principles much more than they disagree. These areas of agreement should be the focus of the *Capstone* course.

We begin with a jumbo reasoning quiz. The answer to statement 1, "There is little agreement among economists on how to control the economy," is uncertain. Although there are many disagreements, economists agree on common themes more than the public recognizes. Now on to some of the areas of agreement.

The answer to statement 2, "The number of people employed and the number of people unemployed can rise at the same time," is true. That is what happened during the 1960s, 1970s, and 1980s. For example, the unemployment rate was 5.5% in 1960 and 6.2% in 1987. In 1960, 65,500,000 people were employed. In 1987, just over 112,000,000 people were employed.

Statement 3, "The higher the real Gross Domestic Product, the better off all the people of the country are," is false on several counts. First, real GDP measures output, not the quality of life. If cars break down in traffic jams, real GDP will go up as consumers use more gasoline and need more car repairs. Secondly, not everyone shares in economic growth. Nevertheless, higher real GDP is associated correctly with a stronger and better economy.

One of the chief causes of inflation is too much money chasing too few goods. When government creates too much money, prices rise. That is why statement 4, "All people would be better off if they just had more money," is false.

Everyone is not hurt by inflation. Statement 5, "Inflation hurts almost everyone," is false. Savers, creditors, and people on fixed incomes are hurt by unanticipated inflation. Borrowers are helped by unanticipated inflation as they pay back fixed-interest loans with cheaper money. Of course, if inflation is anticipated, interest rates will be higher and/or variable.

Inflation, however, does tear at the fabric of society. Inflation's winners think they are clever while the losers feel cheated. That is why John Maynard Keynes wrote, "There is no subtler, no surer means of overturning the existing basis of society than to debauch the currency. The process engages all the hidden forces of economic law on the side of destruction, and does it in a manner which not one man in a million is able to diagnose." (Keynes, 1920)

Fighting inflation is not cost free. Bringing down inflation usually results in higher unemployment. Economists use something called the Phillips curve to describe this tradeoff between inflation and unemployment. The tradeoff explains why statement 6, "Economic history shows that the cost of lowering inflation is a higher unemployment rate," is true. In recent years, however, we have had high unemployment and high inflation, and this has caused some economists to state that the Phillips curve is dead. But even in conditions of high unemployment and high inflation, a tradeoff of some sort did survive. According to economist Alan S. Blinder, "... the reports of the Phillips curve's death were greatly exaggerated, at least in the United States. Understanding why high inflation and high unemployment coexisted in the 1970s holds the key to understanding what went wrong with the world economy." (Blinder, 1987)

In order to improve the macroeconomy, we need first to understand it. In this unit, students will examine monetary and fiscal policies designed to lower inflation, to lower unemployment, and to encourage economic growth. One policy that has never been effective is wage and price controls. Statement 7, "One of the best ways to lower inflation is to impose mandatory wage and price controls," is false. A poll of American economists found 72% opposed using wage and price controls to fight inflation. Milton Friedman represents the majority opinion here:

> In practice, price and wage controls have almost always been used as a substitute for monetary and fiscal restraint, rather than as a complement to them. This experience has led participants in the market to regard the imposition of price and wage controls as a signal that inflation is heading up, not down. It has therefore led them to raise their inflation expectations rather than to lower them. (Friedman, 1980)

The public is more aware of fiscal policy, conducted by the President and Congress, than monetary policy, conducted by the Federal Reserve Board. Yet the Chairman of the Fed is one of the most powerful figures in the U.S. Do your students even know this person's name? Statement 8, "The Federal Reserve Board of Governors has more influence over the economy than Congress does," is true.

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Congress and the President would lose some control over fiscal policy if the budget always had to be in balance. Although some economists support a balanced budget amendment, most would answer statement 9, "We would have fewer economic problems if the federal government were required to balance the budget," as false.

Finally, we must face all these macroeconomic problems in an interdependent world. Events in Europe, the Middle East, and Japan strongly affect our economy. Statement 10, "Luckily, economies as large as that of the U.S. need not worry about the effects of political and economic events occurring elsewhere in the world," is false.

Today's students are tomorrow's decision-makers. They must make hard choices. Alan S. Blinder (1987) sums up tomorrow's challenges:

> Will society marry the hard head to the soft heart, or will it continue with business as usual? Economics is about choices.... In sorting through the macroeconomic policy options, we can be less or more tolerant of high unemployment. When taxes rise, as they must, we can raise the ones that do the least damage to efficiency and put the smallest burdens on the poor, or we can do the reverse. We can resist the calls of the special pleaders for more protectionism, or we can heed them. When and if we resume the crusades against poverty and environmental degradation, we can think with our heads or with our hearts.

None of the answers are preordained, none of the options foreclosed. The United States can do better in the future than it has in the recent past. The economic policy choices we make in the coming years will go a long way toward determining the kind of America we live in when the twenty-first century opens.

Sincerely,

The *Capstone* Authors

Sources

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Friedman, M. *Free to Choose*. New York: Harcourt Brace Jovanovich, 1980.

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UNIT 5
Lesson 1
Money Isn't Everything

Introduction

Economics Many people think that economics is the study of money. Money is an important tool of the exchange process, but economics is not merely the study of money.

Money helps the economy run. Its existence makes it easier and more efficient for people to transfer ownership of goods and services. When the amount of money in the economy as a whole or for particular individuals changes, behavior in the marketplace changes. The U.S. Federal Reserve System has the responsibility of managing the nation's monetary system.

Money in all countries is anything that can serve as:

1. A medium of exchange (widely accepted means of payment);

2. A store of value (preserving purchasing power for future use);

3. A measure of value (a standard -- expressed in prices -- used to compare the relative worth of two or more things.)

Reasoning Two key assumptions of economic reasoning involve incentives and weighing the costs and benefits of various alternatives. The use of money relates to both of these assumptions. Money offers an incentive for many people because it represents potential ownership of things of value. In addition, the relative value of things is easily understood when prices (in terms of money) are used. Price information allows the decision-maker to specify the opportunity cost of a choice.

Concepts

Money
Exchange
Money supply
Federal Reserve System
Opportunity cost

Instructional Objectives

Students will

1. View money as a tool for decision making.

2. Understand what gives money value.

3. Name the various types of money we have in our economy.

4. Begin to see how the total supply of money influences the economy.

Lesson Description

Students participate in demonstrations of what makes money valuable and how important it is in helping an economy to work efficiently. A discussion of the Federal Reserve System is included.

Time Required

Two class periods

Materials

A transparency of Visual 5-1-1 and 5-1-2.
One copy for each student: Handout 5-1-1 and 5-1-2.
Five sheets of paper and a dollar bill.
Trading Cards (one card each for ten students)
Local newspapers, one per student.
Play money, $100,000 (see Procedure 7).
Three items of value to be auctioned off. Select three of the same type of product.
One dollar as a prize.

Procedure

1. Explain to the students that earlier units have emphasized the choices that individuals make in the economy. This unit introduces them to how the whole economy operates and to the ways we measure our economic health.

2. Distribute Handout 5-1-1. Ask students to answer the questions and provide a reason why they answered each question as they did. (The answers are explained in the Letter to the *Capstone* Teacher for this unit.) Indicate to the students that the unit they are beginning will help them to understand these and other questions about how our economy operates.

3. Distribute Handout 5-1-2. Read it to the class. Explain that the letter provides an overall picture of what they will learn and practice during this unit. Stress the fact that this unit focuses on the collective economic actions of people -- in other words, on the economy as a whole. That is why it is called a unit on macroeconomics.

4. Do the following demonstration to illustrate that currency is paper, yet something more. Crumple five pieces of paper and a one dollar bill and throw them on the floor. Ask one student to pick up the papers and throw them into the wastebasket. Watch the student carefully to see if he or she hesitates to throw away the dollar. Say nothing until a decision is made by the student regarding what to do with the dollar bill. Ask the student why he or she did or did not want to throw the dollar away. What reasoning was being followed? Ask the

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class what they would decide to do with the dollar and why.

Ask the students what makes a dollar bill valuable. List their answers on the chalkboard. Display Visual 5-1-1 to illustrate the functions of money as a medium of exchange, store of value, and measure of value.

5. To demonstrate how money helps in the exchange process, conduct a trading simulation. Inform the class that you are going to provide 10 students with a card that represents an item of value. Nine of the card holders will be satisfied with the item given to them. One person will not be satisfied. This dissatisfied person will want to initiate a trade. Note: no money is used in this exchange. The remaining nine people like what they were given but would be willing to trade for one other item. The item they will trade for is listed on the card they receive in the future.

   Begin the task of trying to give the dissatisfied person what he or she wants. In the beginning the dissatisfied person will go to somebody who has the item the dissatisfied person wants, only to find out that this person does not want what the dissatisfied person has to offer. It becomes clear that if an exchange is to be made, the dissatisfied person must get what some other person is willing to trade. This trading process continues until the dissatisfied person obtains the desired item. If done correctly, it will take 19 transactions before the one dissatisfied person gets what he or she wants.

6. Once the activity is complete, ask the following questions:

   A. Is it realistic for different people to value things differently?

      (Yes. Backgrounds, values, and tastes are different.)

   B. What determines value?

      (Preferences of individuals.)

   C. How could you eliminate the problem presented in this simulation?

      (Develop a medium of exchange.)

   D. What purposes does money serve?

      (Store of value, medium of exchange, measure of value, standard of deferred payment.)

7. To help students see how prices denominated in money help in the decision-making process, provide them with a local newspaper — including the want ads. Divide the class into pairs. Ask them to list five items found in the newspapers, advertisements or want ads that have prices within the following ranges: $1.00-$5.00, $10.00-$25.00, $100.00-$500.00, $1,000.00-$5,000.00.

   For each listing, have the students rank-order the items in terms of their preferences. Encourage the students to view the item ranked number two as the opportunity cost of their choice. Underscore the way in which prices allowed the items to be listed and ordered for comparison.

8. To continue exploring the functions of money and to show how the supply of money affects the economy, conduct a classroom auction activity. Place a valuable item of your choice to be auctioned off in front of the class. Inform the students that they may buy the item if they make the highest bid. Explain the rules of an auction —i.e., the item goes to the person making the highest bid.

   Conduct the auction for the first valuable item. The students are to use their own money for this auction. Record the selling price on the chalkboard. Discuss why the price was high or low. Why did some people decide to bid and others not?

   Conduct the second auction for the second valuable item (same type of product as in first auction). The students are to use their money plus the play money the teacher provides in varying amounts. The total value of play money distributed for this auction should be $25,000.00. Record the sale price. Discuss why the price was high or low. Why did some people decide to bid and others not?

   Conduct the third auction for the third valuable item (again, same type of product). The students are to use their money plus the play money given to them in the second auction plus the additional play money distributed by the teacher to students selected randomly. The total value of the play money distributed for this auction should be $75,000.00. Record the price at which the item sells.

9. Discuss why the price was high or low.

   A. Why did some people decide to bid and others not?

      (People value the items differently.)

   B. What happens to prices when a larger stock of money is made available?

      (Prices tend to rise with an increase of the money supply, if the quantity of goods avail-

*Adapted from *Money, Banking, and the Federal Reserve System*, published by the Federal Reserve Bank of Minneapolis, 1979.

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able for sale stays the same or increases only slightly.)

10. Tell the class that the United States Congress passed the Federal Reserve Act in 1913, creating the Federal Reserve System (often called "the Fed"). It was a controversial Act that created a great deal of debate. The Fed still exists today. Display Visual 5-1-2 and explain the chief purposes of the Federal Reserve System.

Closure

Conclude the lesson by explaining that money is sometimes thought to be one of the greatest inventions. Money makes it easier and more efficient for people to transfer ownership of goods and services. The Federal Reserve System has the responsibility of managing the nation's monetary system. Ask:

Can you imagine one situation where a U.S. dollar has no value?

(Being alone in the middle of a desert; being in a country that has no banks to exchange U.S. currency.)

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Visual 5-1-1
What Makes Money Important?

Medium of Exchange

Money is valuable when users accept it in buying and selling goods and services.

Store of Value

Money is a way of storing wealth.

Measure of Value

Money is like a yardstick — it can be used to compare the worth of things that are bought and sold.

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Visual 5-1-2
Purposes of the Federal Reserve System

1. Setting Monetary Policy. The Fed influences the amount of money and credit available in the economy. The Federal Open Market Committee (FOMC) is a policy-making body that meets regularly to make these decisions.

2. Keeping our Financial System Sound. The Federal Reserve Board of Governors, along with other regulatory agencies, supervises, regulates, and examines financial institutions. The Fed helps people have confidence in our currency by destroying unfit money and identifying counterfeits. The Fed also clears millions of checks each day and transfers billions of dollars in funds and securities.

3. Providing Financial Services to the U.S. Government. The Fed, through its Reserve Banks and branches, accepts deposits and issues checks for the U.S. Treasury and issues, services, and redeems government securities.

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Trading Cards

Cut along lines

Hammer - Dissatisfied Owner - Exchange your hammer for a transistor radio.	**Ring** - Satisfied Owner - Exchange only for a gold pen.
Transistor Radio - Satisfied Owner - Exchange only for a haircut.	**Gold Pen** - Satisfied Owner - Exchange only for a steak dinner.
Haircut - Satisfied Owner - Exchange only for eyeglasses.	**Steak Dinner** - Satisfied Owner - Exchange only for a pair of concert tickets.
Eyeglasses - Satisfied Owner - Exchange only for gloves.	**Two Concert Tickets** - Satisfied Owner - Exchange only for two flute lessons.
Gloves - Satisfied Owner - Exchange only for a ring.	**Two Flute Lessons** - Satisfied Owner - Exchange only for a hammer.

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UNIT 5
Lesson 2
What Do We Want From Our Economy?

Introduction

Economics Every economic system does things the people living in it feel are important. This means that people look at everything an economy could accomplish and pick those they want most (those that provide them with the greatest satisfaction). As in individual choice-making circumstances, choosing certain national economic goals means foregoing others.

In the United States, people are continually making choices about what they want their economy to do. Currently, the majority of the people want the economy to aim for full employment, price stability, and economic growth. They also want to reach these goals in the context of a pollution-free environment, a free society, and a society with dignity for all.

It is incumbent upon all citizens to evaluate how well the economy is accomplishing its goals. Various measures such as the Gross Domestic Product, consumer price indexes, and foreign trade statistics — as well as various calculations made from such measures — are used to assist in the evaluation process.

Reasoning The key assumptions about economizing and incentives are used in this lesson, where our instructional activities demonstrate that economic reasoning can be used to explain aggregate behavior as people identify national economic goals. By remembering that only individuals make choices, students can explain why the most popular national goals are those which individuals perceive will provide them with the greatest benefit at the least cost.

Concepts

Economic goals
Economic growth
Economic stability
Full employment
Gross Domestic Product
Consumer Price Index
Unemployment rate

Instructional Objectives

Students will

1. Identify the national economic goals of the U.S. economy.
2. Explain how an economy is evaluated in regard to its goals.
3. Describe the process used to change goals.

Lesson Description

In this lesson students learn about national goals chosen for the U.S. economy, how to measure the economy in light of those goals, and how economic goals can be changed.

Time Required

Two class periods

Materials

One copy for each student: Handouts 5-2-1 and 5-2-2, Economic Goal Cards

Procedure

1. Explain to the class that the purpose of this lesson is to illustrate that national economic goals are determined by people and to ascertain what our national economic goals are today. Distribute randomly the Economic Goal Cards in Handout 5-2-1. In this activity the students must state which economic goals they prefer and argue for their adoption. Tell the students to read the card carefully and to think of economic goals they might have for our economy. The positions taken by the students must be consistent with the roles they are playing. List all of the possible national economic goals on the chalkboard. For large classes, more than one student can accept a particular role.

2. Using the national economic goals listed on the chalkboard, conduct a classroom vote to determine whether the economic goals students have chosen while playing their new roles are reasonable. Conduct a second vote with the students voting as themselves. Discuss the similarities and differences between the two votes.

3. Once the national economic goals have been selected, it is important to evaluate how well the economy is working to achieve these goals. Various measures are used to assist people in the evaluation process. They include Gross Domestic Product (a measure of output), Consumer Price Index (a measure of price stability), and the unemployment rate and employment rate (measures of the labor market). To illustrate how these measures are calculated and how they can be used to make decisions about an economy's performance, distribute Handout 5-2-1.

4. Review the information found on Handout 5-2-1. Ask the students to reach consensus on the answers to the questions.

5. Distribute Handout 5-2-2. Explain to the students that they are to use the data to evaluate an economic system and to make decisions for themselves. When the students have completed the assignment, ask

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them to divide into groups of 4-6 and review each others' work.

Closure

To conclude the discussion on economic goals and measurement, ask each student to make two statements about the economy. One statement should be positive (it is doing a good job), the other negative (it is doing a bad job). Encourage the students to state reasons to support their answers.

Answers to Handout 5-2-2

1. If the GDP rise was caused by rising prices and/or the population increased at a rate faster than the level of output, the per capita GDP would fall.

2. Yes, larger employment numbers and higher unemployment rates are possible if many new workers enter the labor market.

3. Community A, because the purchasing power is greater.

4. Community A, $12,000.00; Community B, $11,111.00.

Answers for Handout 5-2-3

1. Economy D

2. Economy B

3. Economy D

4. More jobs exist but a larger number of potential workers are entering the labor market and do not find work immediately.

5. Economy C

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Economic Goal Cards

Cut along lines

YOU ARE A SIXTY-YEAR-OLD FARMER LIVING IN THE MIDWEST	YOU ARE A TEENAGER WORKING PART-TIME TO HELP YOUR FAMILY KEEP FOOD ON THE TABLE AND A ROOF OVER ITS HEAD.
YOU ARE A WEALTHY LAND-OWNER	YOU ARE A MIDDLE-INCOME PERSON WITH THREE YOUNG CHILDREN.
YOU ARE A BRIGHT YOUNG COLLEGE GRADUATE JUST STARTING WHAT SEEMS TO BE A VERY PROMISING CAREER.	YOU ARE RETIRED, LIVING ON SOCIAL SECURITY.
YOU ARE AN IMPORTER OF COLOMBIAN COFFEE.	YOU EXPORT BLUE JEANS TO YUGOSLAVIA.
YOU ARE YOURSELF.	YOU ARE A MEDICAL DOCTOR.
YOU ARE SINGLE AND HAVE JUST INHERITED A MILLION DOLLARS.	YOU ARE VERY POOR, LIVING IN A LARGE CITY.
YOU ARE EARNING $20,000 AND TRYING TO SUPPORT A FAMILY OF FOUR.	YOU WANT TO WORK BUT CAN'T FIND A JOB.
YOU ARE HEAVILY IN DEBT.	YOU HAVE JUST INVESTED IN SEVERAL SMALL BUSINESSES.
YOU SHIP TRACTORS TO CHINA.	YOU PRODUCE MICROCHIPS IN HONG KONG.

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Unit 5
Lesson 3
An Economy Never Sleeps

Introduction

Economics An economy is a dynamic entity because it represents people making decisions — people deciding to buy and to consume; not to buy and to save; to invest and to produce; to work or to play. Many factors influence these decisions. A slight change in any of the variables may cause a reassessment and a change of behavior. Because so many influential variables are linked together, a change in one will send ripples through many. Consequently, an economy reacts constantly to changes which in turn cause more changes.

A graphic picture of the "motion" in the economy is depicted by the business cycle. Business cycles are sequences of rises and falls in overall economic activity which are summed up by rises or falls (or speedups or slowdowns) in the Gross Domestic Product. Business cycles are usually described as consisting of four phases: a period of expansion, a peak, a period of contraction, and a trough. Once the trough is reached, the expansion begins again.

Expansionary times are usually characterized by more people working, increases in productive capacity and increasing GDP, and rising wages and rising prices — real or expected. Contractionary times usually feature higher levels of unemployment and underutilized productive capacity; stagnant or declining GDP; and level or falling wages and prices. Although some people do well in contractionary times, in general the standard of living falls and the government usually initiates policies to restore economic expansion.

Reasoning Business cycles must be understood as resulting from the decisions people make in response to actual or anticipated economic conditions. These conditions actually change the incentives that influence people in predictable ways. Strong economic growth encourages people to expand economic activity, while recessions discourage people from taking economic risks. During expansionary times, people have employment opportunities and income to spend, save, or invest. If the perception is that the economy is expanding, the incentives encourage expansionary behavior (spending and investing), because business success will provide the investor with a high rate of return. During a contractionary period, most people decide it is in their best interest to cut back and reduce their level of economic activity.

Concepts

Gross Domestic Product
Unemployment
Inflation
Deflation
Recession
Economic growth
Business cycles
Economic indicators

Instructional Objectives

Students will

1. Create a graph of a business cycle from data.
2. Cite periods of expansion and contraction in U.S. history.
3. Develop a rationale for and a list of economic indicators.
4. Understand how periods of expansion and contraction influence people's lives.

Lesson Description

In this lesson the students will learn how people's decisions, when added together, drive the economy. Links between economic ups and downs and the choices people make will be established. In addition, the characteristic behavior of the economy during expansions and contractions will be described.

Time Required

Two class periods

Materials

A transparency of Visual 5-3-1.
One copy for each student: Handout 5-3-1.
Graph paper for each student

Procedure

1. Explain that the purpose of this lesson is to illustrate how the economy never sleeps. The economy is dynamic. It moves through expansionary and contractionary cycles.
2. Project Visual 5-3-1. Explain that you will ask the students to do a series of activities using the information on the transparency. In addition, they will be given the opportunity to reach tentative conclusions about the economy and how the decisions people make influence the behavior of the economy as a whole.
3. Distribute graph paper to every student. Tell the students to use the information on Visual 5-3-1 to:

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A. Graph the real GDP (in 1982 dollars).

B. Graph the unemployment rate for the periods given.

C. Graph the Consumer Price Index for the periods given.

4. Ask:

A. What is the relationship between the GDP, the unemployment rate, and the CPI during business cycles?

(When GDP expands, the unemployment rate tends to fall. The CPI tends to follow the pattern of GDP.)

B. What decisions will consumers and business managers make during a period of expansion? During a period of contraction?

(They will be encouraged to spend and invest more during times of growth and less during times of contraction.)

C. If a recession is defined as a period in which real GDP drops for six months or more, in which years did the U.S. have recessions?

(1928-1929, 1930-1934, 1979-1980, 1981-1982.)

5. Distribute Handout 5-3-1. Explain to the students that they are about to read about life during two periods of our history. Their tasks are to find out how expansionary and contractionary phases in the economy affect people's lives, to identify some possible indicators of changes in the economy, and to answer the questions found on the handout.

Closure

Ask the students to select a person in whom they are very interested. They could choose themselves, a parent, a relative or a person they do not know but admire very much. Assign the students to find out when the person was born and to write a short essay about "What the economy was like when this person was born." The conclusion of the essay must state whether the economy was expanding or contracting at the time of the person's birth.

Answers to Handout 5-3-1

1. Most students will desire an expansionary period. It is at this time that jobs are more readily available, expectations about the economy are positive and overall earnings are larger.

2. More employment of labor and productive capacity. A tendency for rising prices coupled with rising GDP.

3. A reduction of employment and use of productive capacity. Prices are stable or falling.

4. Items leading expansion or contraction:

a. leading expansion
b. leading expansion
c. leading contraction
d. leading contraction
e. leading contraction
f. leading expansion
g. leading expansion
h. leading expansion

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Visual 5-3-1
Our Economy Over the Years

1929	1930	1931	1932	1933	1934	1935
REAL GDP (in billions of 1987 dollars)						
821.8	748.9	691.3	599.7	587.1	632.6	681.3
UNEMPLOYMENT RATE						
3.2%	8.9%	16.3%	24.1%	25.2%	22.0%	20.3%
CONSUMER PRICE INDEX (1967 = 100)						
51.3	50.0	45.6	40.9	38.8	40.1	41.1

1979	1980	1981	1982	1983	1984	1985
REAL GDP (in billions of 1987 dollars)						
3,796.8	3,776.3	3,843.1	3,760.3	3,906.6	4,148.5	4,279.8
UNEMPLOYMENT RATE						
5.8%	7.1%	7.6%	9.7%	9.6%	7.5%	7.2%
CONSUMER PRICE INDEX (1967 = 100)						
271.4	246.8	272.4	289.1	298.4	311.1	322.2
5.8%	7.1%	7.6%	9.7%	9.6%	7.5%	7.2%

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Unit 5
Lesson 4
If It Doesn't Work — Fix It

Introduction

Economics A market-style economy presupposes the principle of "laissez faire." "Laissez faire" means to let people act or choose for themselves. In economics, the term has come to mean little or no governmental regulation or influence on economic activity. Although the U.S. economy adheres in part to the laissez faire principle, the activity of government does have a tremendous economic influence. The government, for example, is the largest single consumer of goods and services, has the power to change tax levels and thus levels of disposable income, and can control the money supply of the economy through the Federal Reserve System.

By changing tax rates and rates of federal spending, government policy makers can stimulate or dampen the economy. These fiscal policy measures can be used to influence total economic activity so as to foster the economic goals of the economy.

The Federal Reserve carries out monetary policy. It has the power, in fact the responsibility, to use open market operations (the buying and selling of government securities), changes in the reserve requirements of banks, and changes in the discount rate to increase or decrease the supply of money and credit in the economy. These actions also influence total economic activity.

Reasoning The U.S. federal government has the power to intervene in the economy by changing incentives and costs. Economic reasoning helps us forecast the consequences of different policies used by the government to influence the economy. Moreover, when choosing different policies, government officials also weigh costs and benefits, are influenced by incentives, experience opportunity costs, and try to predict the impact of their decision on the future.

Concepts

Money
Monetary Policy
Fiscal Policy
Aggregate Expenditures

Instructional Objectives

Students will

1. Describe how fiscal policy can be used to contract or expand the economy.
2. Explain how monetary policy can be used to contract or expand the economy.
3. Evaluate economic conditions in order to determine the correct fiscal and/or monetary policy that can improve those conditions.

Lesson Description

In this lesson students will find out how fiscal and monetary policies influence the level of aggregate expenditures demand and thus contract or expand the economy. In addition, students will participate in activities in which they will determine what policies should be employed to help the economy reach its goals.

Time Required

Three class periods

Materials

A package of play money.
Three items of value for auction.
One copy for each student: Handout 5-4-1, 5-4-2, and 5-4-3.

Procedure

1. Explain that in this lesson students will learn how fiscal policy can be used to contract or expand the economy. Introduce students to this idea by asking them to imagine what would happen if they could actually follow a dollar they spent through the economy. Ask:

   A. How can people get money to spend in the marketplace?

   (As wages for work performed, as gifts, by deciding to reduce other expenditures, from transfer payments from government, through reduced taxes.)

   B. What does money allow people to do?

   (Exchange goods and services, save and invest, borrow funds.)

   C. Can a dollar be used more than once? Explain.

   (Money flows and reflows through the economy. One person's income, when spent, becomes someone else's receipts; those receipts are that person's income which, when spent, become someone else's receipts, and so on and on.)

Adapted from *Teaching Strategies: High School Economics Courses*. National Council on Economic Education, 1985.

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D. When people receive more money than they had before, what influence does this have on them and the economy?

(Higher incomes stimulate the economy because greater spending increases aggregate expenditures and business activity when prices are not affected.)

E. When people receive less money than they had before, what influence does this have on them and the economy?

(Lower money incomes contract the economy because reduced spending decreases aggregate expenditures and business activity when prices are not affected.)

2. Next comes an activity in which the students see firsthand the effects of fiscal and monetary policy on their own decisions to consume, and how these decisions influence an economy's total output. Distribute play money to each student. Vary the amount of money from $10.00 to $100.00 for each student. Inform the students that you and they will form an economic system. You as the teacher will represent the producers while they will represent the consumers.

3. Conduct an auction among the students for one valuable item by having them use the play money. Sell the item to the highest bidder. Record the selling price on the chalkboard. Suggest to the students that many actions on the part of government or the Federal Reserve Board can change their demand for goods and services, assuming prices and expectations do not change.

4. Present these actions to the class, explaining them as necessary.

Expansionary Actions
Fiscal policy
- Reducing taxes
- Increasing government spending

Monetary policy
- Buying treasury securities
- Lowering reserve requirements
- Lowering the discount rate

Contractionary Actions
Fiscal policy
- Increasing taxes
- Decreasing government spending

Monetary policy
- Selling treasury securities
- Raising reserve requirements
- Raising the discount rate

5. Conduct a second auction for a valuable item, assuming that an expansionary Federal Reserve policy of buying treasury securities has increased the stock of money by 25 percent. Provide students with 25 percent more play money before conducting the auction. Record the selling price on the chalkboard. Note that the price should be higher in this auction than in the first auction. Tell the students that the higher price suggests to Keynesian economists that aggregate consumer expenditures have expanded, which should stimulate more production, jobs, or higher prices. (Other economists believe that people's economic expectation will cause behavior that will lead to different results.)

6. Conduct a third auction for a valuable item after a contractionary policy has been initiated. Raise taxes and take back 50 percent of the students' play money. Record the selling price on the chalkboard. Note and point out to the class the lower price and the reluctance of consumers to enter the marketplace.

7. Have students predict the behavior of consumers and producers with each expansionary and contractionary fiscal and monetary policy (here again the lesson assumes a Keynesian model). They should use their *Handy Dandy Guide*.

8. Explain to the students that they are to assume the roles of members of Congress. As senators and representatives, they will be asked to make recommendations and take a position on fiscal policy measures designed to correct possible economic ills. Distribute Handout 5-4-1 and 5-4-2. Direct the students to read the statistics on the economy carefully before answering the questions on the first two handouts. Discuss the students' responses, using the following:

Situation One (Handout 5-4-1)
The economy is in contraction. Unemployment is rising, and real GDP and investment are falling. Note that the price level is increasing slightly. Consistent with national economic goals, Congress would like to improve growth and reduce unemployment while keeping prices stable. Policies to expand the economy include reducing taxes and/or increasing government spending. Combinations of these two fiscal policies that inject more purchasing power into the system will tend to turn a sagging economy around.

Situation Two (Handout 5-4-2)
The main problem of increasing inflation must be addressed within the context of economic growth and a declining unemployment rate. Congress will usually want to cut inflation and, if a budget deficit is present, reduce government expenditures. In addition to reduced government spending, business and personal taxes might also be increased. These actions should put the budget into surplus or decrease the existing deficit.

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9. To broaden the students' understanding of monetary policy, distribute Handout 5-4-3. Explain to the students that they are about to learn more about the organization that controls the money supply and the policies it follows to accomplish this. Direct the students to read the handout carefully and to answer the questions that follow it. Discuss the students' responses to the questions, using the following information and the answer sheet:

   The Federal Reserve System consists of a seven member Board of Governors and twelve regional banks. The "Fed" is the national central bank and works mainly by affecting the activities of the commercial banking system. The Federal Reserve takes deliberate action to expand or contract the money supply for the purpose of meeting our nation's economic goals.

   Expansionary policy includes buying government securities, lowering the discount rate, and lowering reserve requirements. Contractionary policy includes selling government securities, increasing the discount rate, and raising reserve requirements.

   An inflationary economy would cause the Federal Reserve to initiate contractionary policies, while an economy in recession would necessitate expansionary policy measures.

Closure

Develop an instant bulletin entitled MONETARY & FISCAL POLICIES IN THE NEWS. Ask students to search for articles in newspapers or magazines that relate to economic policy measures being implemented or contemplated that will expand or contract activity in the economy. Post the articles on the bulletin board.

Answers to Handout 5-4-1

Cast Your Vote

1. The economy is in a recession. Unemployment is rising, and real GDP and investment are falling. The price level is increasing slightly.

2. Increasing economic growth and reducing unemployment while achieving stable prices.

3. Increase government spending. Reduce business and personal taxes. Do either or both of the above on a scale sufficient to put the federal government's budget into deficit or to increase a deficit that may already exist.

4. Answers depend on the values of each student. Students who dislike big government may emphasize reducing taxes. Advocates of government social programs may emphasize more government spending. Be flexible in assessing the answers.

Answers to Handout 5-4-2

Cast Your Vote, Again

1. The main economic problem is inflation. The inflation rate over the past four quarters is 14 percent a year [(250/220) x 100]. The economy is growing, and the unemployment rate is declining.

2. Decreasing the rate of inflation. Cutting spending.

3. Increase business and personal taxes. Do either or both of the above on a scale sufficient to put the federal government's budget into surplus or to decrease a deficit that may already exist.

4. Answers depend on the values of each student. Students who value government programs may emphasize tax increases. Those who feel business and personal spending is more productive than government spending may advocate lower government expenditures. Be flexible in assessing the answers.

Answers to Handout 5-4-3

The Federal Reserve System and Monetary Policy

A. Describe the organization of the Federal Reserve System.

   (The Federal Reserve System consists of a seven-member Board of Governors in Washington, DC, and twelve regional banks.)

B. What is monetary policy?

   (Deliberate action by the Federal Reserve to affect the expansion or contraction of the money supply in order to maintain the trend of economic growth, employment, and prices at desired levels.)

C. In the table below, indicate how the Federal Reserve would use each of the three monetary tools to pursue an expansionary policy and a contractionary policy.

Monetary Tool	Expansionary Policy	Contractionary Policy
Open market operations	Buy government securities	Sell government securities
Discount rate	Lower	Raise
Reserve requirements	Lower	Raise

D. What kind of monetary policy would the Federal Reserve probably follow if the country were experiencing an annual inflation rate of 15 percent? Why?

   (A contractionary policy, because inflation results from too rapid an increase in the supply of money or too rapid an increase in economic growth, or both.)

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E. What kind of monetary policy would the Federal Reserve probably follow if the country were experiencing a severe recession with high unemployment and falling prices? Why?

(An expansionary policy, because a lack of growth in the money supply helps prolong or aggravate a recession. An expansionary monetary policy would usually act to lower interest rates, which would stimulate investment in plants, equipment, and inventories and thereby help to curb recession or help the economy to climb out of a recession.)

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Unit 5
Lesson 5
Macro-Mysteries

Introduction

Economics The behavior of people makes economics interesting and complex. People continually assess their circumstances, the costs and benefits associated with various alternative choices, and then make choices to attain particular benefits. These decisions in turn create new circumstances for other people, who then must adjust to the previous actions. This constant action and reaction makes the marketplace dynamic —and sometimes mysterious.

Reasoning A key assumption of economics is that people attempt to enhance their well being by economizing. When opportunities for improvement present themselves, people adjust their behavior to take advantage of them. The adjustments may consist of changing consumption behavior, investments, altering land use, finding new jobs, or even switching to new methods of making a product. Because nobody is completely self-sufficient, the change initiated by one person actually changes the decision-making environment for others. Understanding economic reasoning and recognizing the linkages that exist among consumers, workers, and citizens will help demystify the economy and make economic events more predictable. In a macroeconomic environment, the primary incentive from a business perspective is profit; from a consumer viewpoint, it is satisfaction or utility; for workers, it is wages; for the owners of land, it is rent; and for investors, it is interest or dividends. Modifications in the size of any or all of these incentives will cause behavior to change in many segments of the economy.

Concepts

Incentives
Circular flow of economic activity
Costs and benefits
Choice

Instructional Objectives

Students will

1. Diagram the flow of economic activity among the key sectors of the economy.

2. Use the *Handy Dandy Guide* to solve economic mysteries.

Lesson Description

Students will describe the linkages that exist among people with different economic roles and tell how changes in behavior by one group will affect the behavior of others. In addition, the students will use the Economic Way of Thinking model to improve their understanding of seemingly confusing events in the economy.

Time Required

Two class periods

Materials

One copy for each student: Handout 5-5-1.
Puzzle Set of the Economy
A transparency of Visual 5-5-1 and 5-5-2.
Optional video tape recorder and camera.

Procedure

1. Explain that the purpose of this lesson is to illustrate how the U.S. economy works and how people are linked to or dependent upon one another. (You may wish to review with the class the idea of circular flow which was introduced in Unit 1, Lesson 9.) Divide the class into groups of 4-6 students. Distribute one puzzle set (Puzzle Set of the Economy) to each group. Ask the students to put the macroeconomy puzzle together. Explain to the groups that they must use all of the puzzle pieces in their puzzle set. The pieces represent parts of the economy. It is their task to put the puzzle together using proper flows and labels of economic activity. As they work on the puzzle, ask each group to discuss what an economy is, what it does, how it works, and who is involved in economic activity.

   When the pictures of the economy are completed, ask a member from each group to draw the group's picture on the chalkboard. Compare the pictures by having each group question the others. Display Visual 5-5-1 for final evaluation.

2. Using Visual 5-5-1 or one student's picture of the economy, ask the following questions:

   A. What do producers do?

      (Change resources into a more valuable form.)

   B. In what different ways can people make money?

      (Work for wages, sell ownership of resources, invest, produce a good or service people are willing to pay for.)

   C. What is the impact on the economy when consumers slow their rate of spending?

      (Fewer dollars flow to business, to government, and to product and resource markets.)

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D. Describe what happens when consumers must pay more of their income in taxes.

(Consumers have fewer dollars to spend in the product market while government has more money to spend for products. The businesses that produce the products government wants increase their sales.)

3. Display Visual 5-5-2 to the class and quickly review the *Handy Dandy Guide*.

4. Before beginning this activity, cut out the following mysteries and place them in a bowl or paper bag.

Macro-Mysteries

SAVING IS GOOD FOR THE ECONOMY SO LONG AS NOT TOO MANY PEOPLE DO IT.

THE ECONOMY HAS PUT MORE PEOPLE TO WORK WITH AN INCREASING UNEMPLOYMENT RATE.

PUTTING MORE PEOPLE TO WORK CAN CAUSE INFLATION.

TOTAL INCREASED SPENDING CAN BE LARGER THAN THE BEGINNING AMOUNT OF INCREASED SPENDING.

IF POVERTY IS BAD, WHY NOT GIVE POOR PEOPLE MONEY?

INFLATION IS CONSIDERED BAD BY SOME PEOPLE BUT GOOD BY OTHERS.

AN INCREASE IN GDP OF 10 PERCENT CAN MAKE PEOPLE WORSE OFF.

MONEY CAN BE CREATED WITHOUT PRINTING MORE MONEY.

HIGHER TAX RATES CAN REDUCE THE GOVERNMENT'S TAX REVENUE.

SOME PEOPLE FEEL RICH WHILE OTHERS WHO EARN THE SAME INCOME FEEL POOR.

EVEN WITH INTEREST RATES HIGH, PEOPLE STILL DON'T SAVE MUCH OF THEIR INCOME.

5. Distribute Handout 5-5-1. Ask the students to use the *Handy Dandy Guide* to explain seemingly confusing events in the marketplace. Draw macro-mysteries and read them to the class. Use the questions on Handout 5-5-1 to guide the discussion.

Closure

Divide the class into eight groups. Assign each group one question from the beginning quiz (Handout 5-1-1). Their task is to answer the questions and explain why their answer is correct. They should use real world examples in their explanation. Ask each group to report to the class.

Sample Answer Key for Macro-mysteries

Mystery:
Higher Tax Rates Can Reduce the Government's Tax Revenue.

Description:
The government has raised tax rates in order to increase tax revenue only to find that this policy has reduced the amount of tax revenue received.

People involved:
Government policy makers and people who pay taxes.

What people value:
In this mystery, people value the ability to use their money to buy goods and services they want.

Incentives:
Government officials want tax revenue to spend on programs favored by their constituency. Businesses want to increase profits to provide money to the owners and/or to expand. Workers want to earn money to buy goods and services.

Action:
Government officials could keep tax rates as they are or increase taxes to fund programs favored by their constituents.

Businesses can pay the higher tax rates or seek ways to reduce higher tax rates.

Workers can pay the higher rates, work more and be taxed at the higher rate, or seek ways to reduce the tax bill through less work or other non-taxable activities.

People respond to incentives. Higher taxes represent a disincentive for work. Reduced work will lower income from which taxes are determined.

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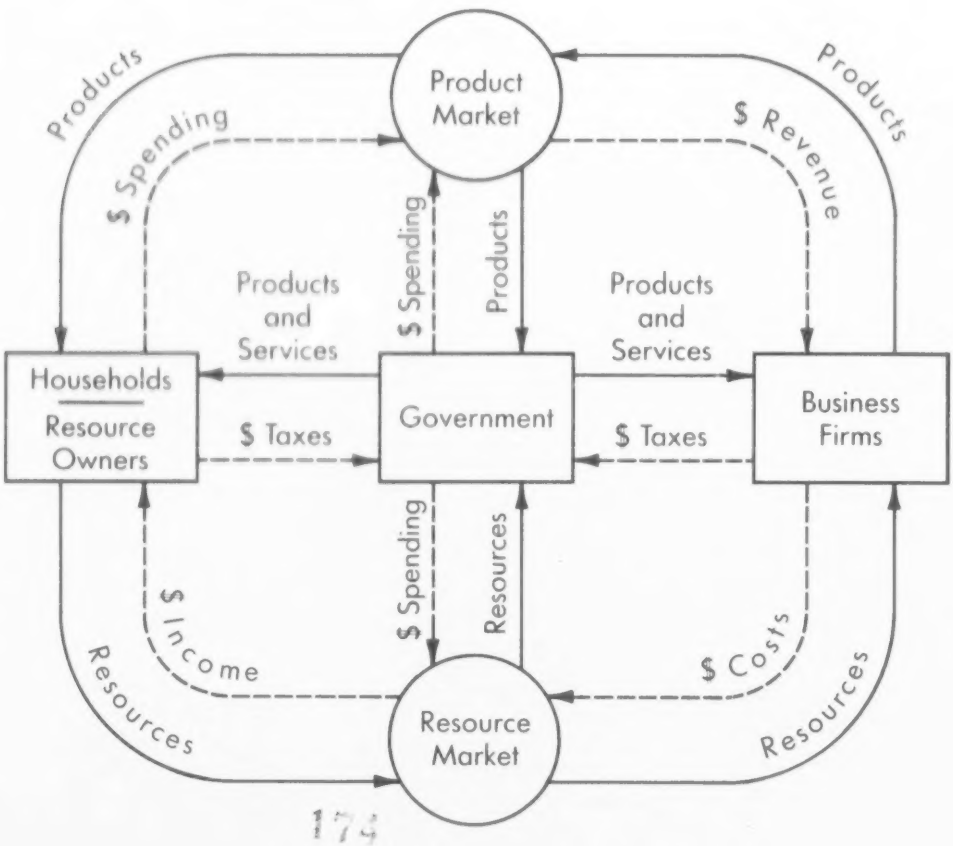
Visual 5-5-1
A Picture of Our Economy
The Circular Flow of Products, Resources, and Money in the American Economy.

Note how households, business firms, and government are linked through the product and resource markets. Broken lines show money flows, while solid lines show flows of goods and services.



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Visual 5-5-2
Handy Dandy Guide (HDG)

1) People economize.

2) All choices involve cost.

3) People respond to incentives in predictable ways.

4) Economic systems influence individual choices and incentives.

5) Voluntary trade creates wealth.

6) The consequences of choices lie in the future.

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Puzzle Set of the Economy

Directions to the teacher:

Make as many copies of the Puzzle Set as you have groups. Cut black dotted lines and place pieces in a #10 envelope. One complete puzzle set should be made for each group.

PRODUCT	PRODUCTS	PRODUCTS AND SERVICES
$ SPENDING	$ REVENUE	PRODUCTS AND SERVICES
$ TAXES	$ TAXES	PRODUCT MARKET
$ SPENDING	PRODUCTS	BUSINESS FIRMS
$ SPENDING	RESOURCES	HOUSEHOLDS-RESOURCE OWNERS
$ INCOME	RESOURCES	GOVERNMENT
$ COSTS	RESOURCES	RESOURCE MARKETS
→	→	→
→	→	→
→	→	

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Sample Test Items

Unit 5 Macroeconomics

1. Money is considered valuable because

   A. People accept it as a medium of exchange.

   B. It stores value.

   C. It enables people to calculate opportunity costs.

   *D. All of the above.

2. People like to hold/earn money because

   *A. It represents future ownership of goods and services.

   B. It's economical.

   C. The paper and metal have a large intrinsic value.

   D. None of the above.

3. Full employment represents a national economic goal because

   A. The President says so.

   *B. A societal consensus has been reached.

   C. It is good to have people working.

   D. Congress says so.

4. When evaluating an economy, people should always remember to

   A. Use statistics.

   B. Use a curve.

   *C. Set standards by using the economy's goals.

   D. Avoid personal values.

5. The best measure of an economy's performance is

   A. GDP.

   B. Real GDP.

   C. The number of automobiles produced.

   *D. Real GDP per capita.

6. An economy's good and bad times are depicted by its

   A. Population numbers.

   B. Output of computers.

   *C. Business cycle.

   D. Hardship index.

7. Expansionary times usually are characterized by all but the following:

   A. Higher resource use.

   *B. Increasing unemployment rate.

   C. Increased GDP.

   D. Rising wages.

8. Monetary policy includes

   A. Discount rate adjustments.

   B. Open market operations.

   C. Taxation changes.

   *D. Both A & B.

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9. The flow of economic activity diagram demonstrates

   *A. The people in the economy are linked together.

   B. There is a finite amount of money to be spent.

   C. Government is the largest consumer.

   D. All of the above.

10. When thinking about events in the economy, it is important to consider

    A. Changes in the incentives.

    B. Alternative courses of action.

    C. Opportunity costs.

    *D. All of the above are important considerations.

Sample Essay Questions: Conversations About Economics

The following are essay questions designed for Unit 5. Students should be asked to read the items and evaluate the arguments of each speaker. In evaluating key arguments, they should ask the following questions:

- Is the speaker using economic or non-economic reasoning? How?

- Do you agree or disagree with the argument?

I. GDP and Economic Welfare

Jill Bertucci Last year GDP grew at a 7% rate. This shows that the economy is strong and our standard of living is rising.

Curt Lyons Is that real or current GDP?

Rita Benson I don't care what kind of GDP you're talking about. A rising GDP means nothing. Is there less pollution? Is there less crime? Are the poor better off? GDP is useless in determining whether we're better or worse off than before.

II. Fighting Unemployment

Terry Wetzel Unemployment is 6% and millions of workers need jobs. Why doesn't the government do more to fight unemployment?

Chuck Elashik I agree. I heard an economist say that the "full employment rate" is a 5% unemployment rate. I say full employment means no unemployment. Let's reduce the unemployment rate to zero.

Doug White You forget that a lot of unemployed people don't really want to work. They'd rather drink beer and collect welfare checks.

Harold Hack I don't know about that, but fighting unemployment has a cost. The lower the unemployment rate, the higher the rate of inflation. Are you willing to accept more inflation in order to reduce unemployment?

III. How to Cure a Recession

Les Hingham This is the most serious recession in 40 years. Unemployment is 11%, and real GDP is down 5%. Investment spending and purchases of durable goods are down sharply. The government must act now.

Joyce Fulton You're right. Let's stimulate the economy with an expansionary fiscal policy. The government should cut taxes immediately and increase its spending.

Cesar Budo What about monetary policy? Let's increase the money supply. That will reduce interest rates and stimulate investment.

Marcus Timmons Wait a second! Increasing the money supply causes inflation. Let's keep the growth of the money supply low. A tight monetary policy combined with a loose fiscal policy can lower unemployment without increasing inflation.

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Unit 5
Answers for Teachers and Discussion Points on Sample Essay Questions

I. GDP and Economic Welfare

There are two issues in this case study. First, an increase in GDP indicates economic growth only if inflation is considered. Rising real GDP indicates economic growth because inflation is subtracted from current GDP. To compare countries, per-capita GDP should be used.

Secondly, GDP is a measure of production, not economic welfare. Rita Benson makes a good point. However, almost all studies show a strong correlation between per-capita GDP and a nation's standard of living.

II. Fighting Unemployment

There are several points students should consider in this case study. First, Doug White is wrong. The unemployment figures are compiled from a survey of 60,000 households. To be classified as unemployed, a person has to be not working and looking for work. A person who is not looking for work is classified as not in the work force.

Chuck Elashik is wrong about reducing the unemployment rate to zero. Economists believe there is a natural rate of unemployment. For example, the unemployment rate includes people who quit their jobs to look for better ones. However, many economists are concerned with the fact that the so-called natural rate of unemployment is rising. Poor macroeconomic performance in the 1970s and early 1980s may have lowered our standards.

Finally, there is a trade-off between the unemployment rate and the inflation rate. This trade-off, called the Phillips curve, was at higher levels and sometimes didn't hold in the 1970s and 1980s. Alan Blinder (1987) analyzes the trade-off between inflation and unemployment in the 1970s and 1980s as follows:

> The trade-off between unemployment and inflation has been widely misinterpreted to assert that inflation must be low when unemployment is high and high when unemployment is low. So when high inflation and high unemployment occurred together in the 1970s, many observers wrongly declared the Phillips curve dead and conventional macroeconomic analysis bankrupt.
>
> But . . . the reports of the Phillips curve's death were greatly exaggerated, at least in the United States.

Blinder (1987) estimates that the cost of fighting inflation in the 1980s (the opposite of the problem in this case study) caused the following extra (above 5%) unemployment:

1980	1.3 percent
1981	1.8 percent
1982	9 percent
1983	3.8 percent
1984	1.7 percent
Total	12.5 percent

This once again illustrates that there are no cost-free decisions.

III. How to Cure a Recession

Les Hingham is right; the economy is in a recession. From a Keynesian perspective, the government should stimulate aggregate demand by decreasing taxes, increasing spending, or both. A Keynesian would agree that monetary policy should be loose enough to bring down interest rates. However, creating too much money could increase the rate of inflation. Tightening the money supply would cause interest rates to rise as consumers and producers try to borrow more money. These higher interest rates could decrease aggregate demand.

If students take a rational expectations perspective, they would do nothing.

A monetarist would increase the money supply 3-5%.

Sources

Blinder, A.S. *Hard Heads, Soft Hearts*. Reading MA: Addison Wesley Publishing Co. (1987)

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Unit 6
Forecasting Our Economic Future

	Letter to the *Capstone* Teacher
Lesson 1	How Does a Forecast Differ from a Guess?
Lesson 2	Making a Macro-Model: Consumers
Lesson 3	Making a Macro-Model: Investment
Lesson 4	Making a Macro-Model: Government
Lesson 5	Making a Macro-Model: Imports and Exports
Lesson 6	Be a *Capstone* Fearless Forecaster
Test	Sample Test Items

"Your economic forecasts give you
a window to your future."

Unit 6
Letter to the *Capstone* Teacher

Dear *Capstone* Teacher:

In this unit, students learn the value of some of the tools in the economist's tool box. Economics is often criticized for being too abstract, too theoretical, and too unrealistic. Now students observe why abstraction and simplification are necessary to enable economists to build models that can explain and predict human behavior.

The economist's task is difficult because human behavior has many more variables than chemical or physical behavior. Economists William J. Baumol and Alan S. Blinder make the case for the difficulty of the economist's task when dealing with human behavior (Baumol & Blinder, 1985):

> Compare the chemist's task of explaining the interactions of compounds in a chemical reaction with the economist's task of explaining the interactions of people in an economy. Are molecules ever motivated by greed or altruism, by envy or ambition? Do they ever emulate other molecules? Do forecasts about them even influence their behavior? People, of course, do all these things, and many, many more. It is therefore immeasurably more difficult to predict human behavior than it is to predict chemical reactions. If economists tried to keep track of every aspect of human behavior, they could surely never hope to understand the nature of the economy.

It is precisely because human behavior is so complex that economists must use abstractions and simplify reality. Economic models should not be judged on how closely they resemble reality but on how useful they are in explaining economic behavior and predicting the results of alternative economic policies. Thus, economic theories help us to make sense out of the confusion known as the real world.

Once again, Unit 6 begins with a quiz for the students. Remember that these quizzes are intended to stir interest in studying economics. Quiz statement 1, "Economic theory is not very useful because human behavior is not predictable," is false. It is predictable if we use abstract models. These models must simplify reality; so Statement 2, "To be useful, economic theories must simplify reality," is true.

The value of a model is determined by how well it forecasts, not by how many variables it contains. For example, the supply and demand models studied earlier assume perfect information, a condition that rarely exists in today's world. Yet few rational persons would deny that supply and demand models predict and explain many aspects of human behavior. Therefore, Statement 3, "Forecasting models should be judged by the number of real world variables included in them," is false. Statement 4, "Economic models have little usefulness in forecasting the economic future," also is false.

Finally, students struggling through this model-building unit may ask why any of this material is important. It is important because understanding how our economy works can help us to improve the human condition. And the human condition definitely needs improving. Undoubtedly, you will discuss the problems of poverty and the homeless in the U.S. The U.S. economy needs to grow to improve the lives of its citizens. In 1986, real per-capita GDP in the U.S. was $15,390. In Ethiopia, real per-capita GDP was the equivalent of U.S. $110. Sadly, the answer to Statement 5, "Some nations have a per-capita gross national product which is less than one percent of the U.S. per-capita GDP," is true.

Economic science is not exact, and there is much that economists don't know. However, your students should have learned by now that economists do know a great deal about how to improve human lives. We hope they will be among the growing number of people who will listen and act on economic knowledge.

Sincerely,

The *Capstone* Authors

Sources

Baumol, W.J. & Blinder, A.S., *Economics: Principles and Policy*. San Diego: Harcourt Brace Jovanovich, 1985.

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UNIT 6
Lesson 1
How Does a Forecast Differ From a Guess?

Introduction

Economics For years, economics has been called the "science of choice-making." It has been called this because economics deals with the relationship between limited resources and unlimited wants — which continually forces people to make choices. Economists have spent a considerable amount of time and energy analyzing the concept of choice, including how people choose, why people choose, and what factors might change people's choices. With this knowledge, economists can build models that forecast how those choices will affect the economy. Such forecasts, in turn, can help people to make better choices.

Reasoning People are continually making choices. The consequences of their choices occur in the future. Therefore, choices require decision-makers to examine both the future costs and the future benefits of the available options. To examine future costs and benefits, decision-makers often make use of information summarized in models that predict the future.

Concepts

Choice
Models
Forecast

Instructional Objectives

Students will

1. Understand how economic models are built and how they help in making choices.
2. Review models of the economy that they have studied previously.

Lesson Description

In this lesson students will review and build models of the economy. The information gained from the models will then be incorporated into the decision-making process. The importance of insight into the future of proper decision-making will be emphasized.

Time Required: Two class periods

Materials

One sheet of 8½" x 11" plain paper.
A transparency of Visual 6-1-1.
One copy for each student: Handout 6-1-1, 6-1-2, and 6-1-3.

Procedure

1. Explain that in this unit students will continue to study the economy as a whole. Distribute Handout 6-1-1. Direct the students to answer the questions and to provide a reason why they answered each question as they did. Discuss their responses to each item. (The answers for the teacher appear in the Letter to the *Capstone* Teacher for this unit.)

2. Distribute to each student a copy of Handout 6-1-2, the letter to the students. Explain that the letter provides an overall picture of what students will learn and practice in this unit. Stress that this unit focuses on the importance of using what we know about people's behavior and the economy in order to forecast the future.

3. Explain that economists find it useful to build models of parts of the economy. These models are roughly analogous to models that carpenters, architects, and engineers build. Models help us understand complex relationships and, when expressed in diagrams, give us a visual presentation that makes relationships easier to understand.

4. To introduce the concept of a model, provide each student an 8½" x 11" piece of plain paper. Ask each student to think about something that interests him or her and that can be summarized or presented through the use of a model. Explain that a model is a representation of reality — usually less complex than the real thing. Once all the students have selected a subject of interest, ask them to build a model using the piece of paper. An example may be the concept of flight presented through the use of a model paper airplane, or a picture of a real thing (bridge, table), or a model kite.

5. Allow a few minutes for the students to share their models with the class; Ask:

   A. What can models help us to understand?

   (There are very few phenomena that models can not help us to understand better.)

   B. What are some chief characteristics of models?

   (They are usually simplified versions of the subject they depict, are often visual in nature, and focus on showing relationships.)

   C. How can a model improve our understanding of the world?

   (Models place the complexities of real life into an observable form and show how variables are linked together.)

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D. What is a good model?

(One that permits us to state an accurate explanation of the reality we seek to understand.)

6. Because economists study the behavior of individuals and groups in the marketplace, models can be useful devices in helping us to understand what is likely to happen under different circumstances. Just as an engineer builds a scale model of a bridge to better understand the forces of gravity, stress, and appropriate construction techniques, the economist produces a graph that demonstrates consumer behavior as prices change.

7. Project Visual 6-1-1. Ask the students to note the information (behavior) that is represented on these models in the form of graphs. Discuss the forecasting or predictive abilities these models provide.

Answers for Visual 6-1-1

MODEL #1

1. When price increases, people will purchase a smaller quantity of ice cream. Conversely, when prices fall, people will purchase more.

2. The amount of ice cream purchased would decline.

MODEL #2

1. When prices rise, the quantity of ice cream suppliers will bring to market increases. Falling prices reduce the quantity brought to market.

2. A higher price of $24.00 will cause suppliers to increase the quantity supplied from 8 gallons to 16 gallons.

MODEL #3

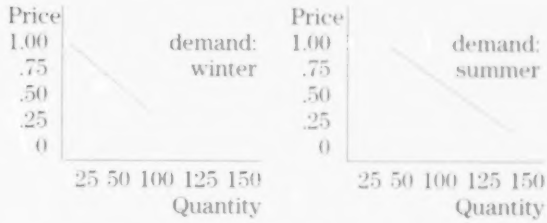
1. Resources can be used in many ways. The model here demonstrates that books can be produced or wheat or a combination of the two with the resources at hand.

2. The model suggests that to produce 90 bushels of wheat will cost society 70 books.

8. Many of the models used in economics provide information pertaining to present or future choices. To help students understand that everyone — including themselves — is always making choices, that choices are made to obtain certain benefits, and that the benefits of choices are received only after a choice is made, distribute Handout 6-1-3 to each student. Assign the handout as homework. Upon completion of the assignment, divide the class into groups of 4-6 to discuss students' responses to the questions and activities.

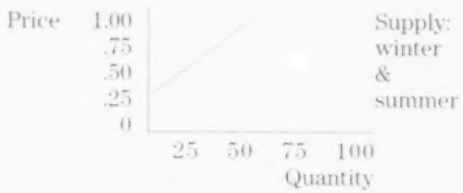
Answers to Handout 6-1-3

Case 1



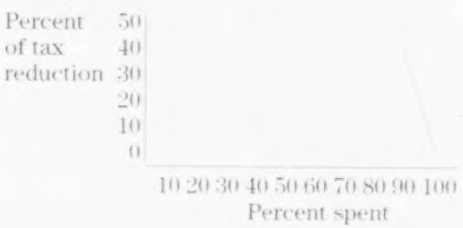
The winter season changes the consumers' buying behavior for ice cream cones; fewer cones are bought at any price. Many ice cream cones are bought in the summer — even at high prices. The higher the price, the small the quantity demanded in both instances.

Case 2



The supplier will supply the same amounts in winter and summer at similar prices. When prices rise, suppliers will supply more ice cream cones.

Case 3



The information shows that a larger percentage of the tax savings dollar is spent when the percentage of tax reduction is small.

Closure:

To reinforce the notion that models simulate reality and exist in many forms, display a copy of a familiar board game such as "Monopoly" in a prominent place in the classroom. Review the game and its rules briefly. In a class discussion, ask the following questions:

A. What skills do you have that will allow you to play the game?

(Understanding of money, buying, selling, reading, etc.)

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B. Where did you learn the skills mentioned in the previous question?

(School, the marketplace, parents.)

C. What is the game similar to in real life?

(The marketplace.)

D. Does the game model the real world?

(Yes, the marketplace.)

E. Is the game an exact replica of the marketplace? Explain.

(The game is a simplistic model of the world. It does not allow for loans, and money is given to the players at times for no apparent reason.)

Assign the students the task of selecting and playing a board game of their choosing. Ask them to answer questions A-E, above, on a separate piece of paper.

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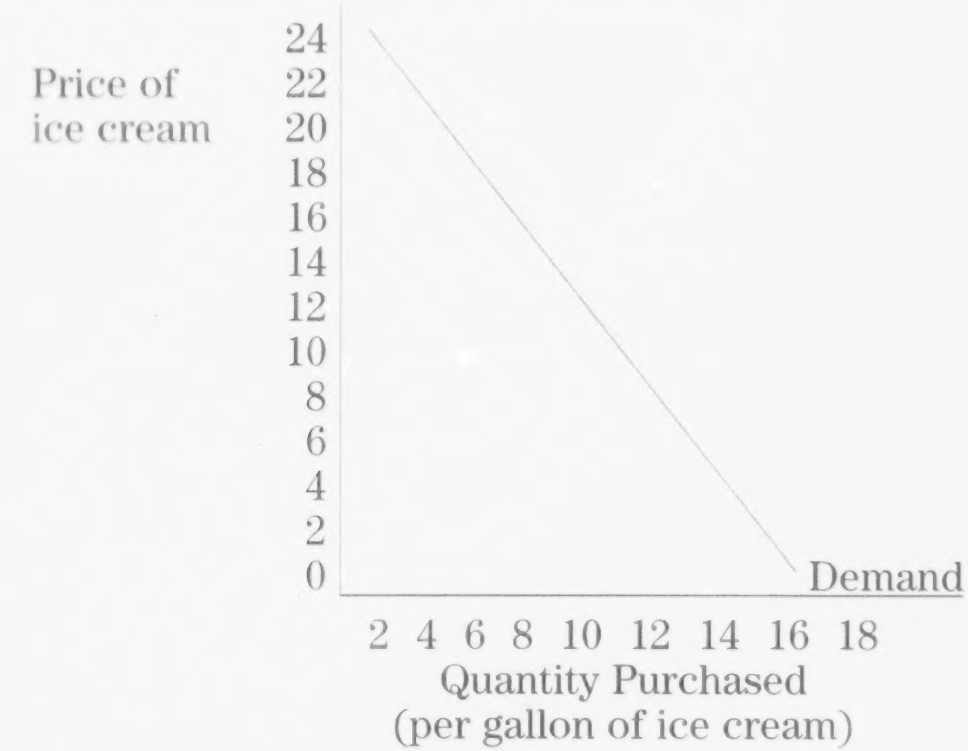
VISUAL 6-1-1
ECONOMIC MODELS

Models of economic behavior help us to understand our own economic actions and the actions of others. In addition, models help to forecast future behavior. Review each model, summarize the information it contains in your own words, and respond to the predictive question in each model.

MODEL #1



1. What information does this model convey?
2. What would happen to the amount of ice cream purchased if the price changed from $10 to $24?

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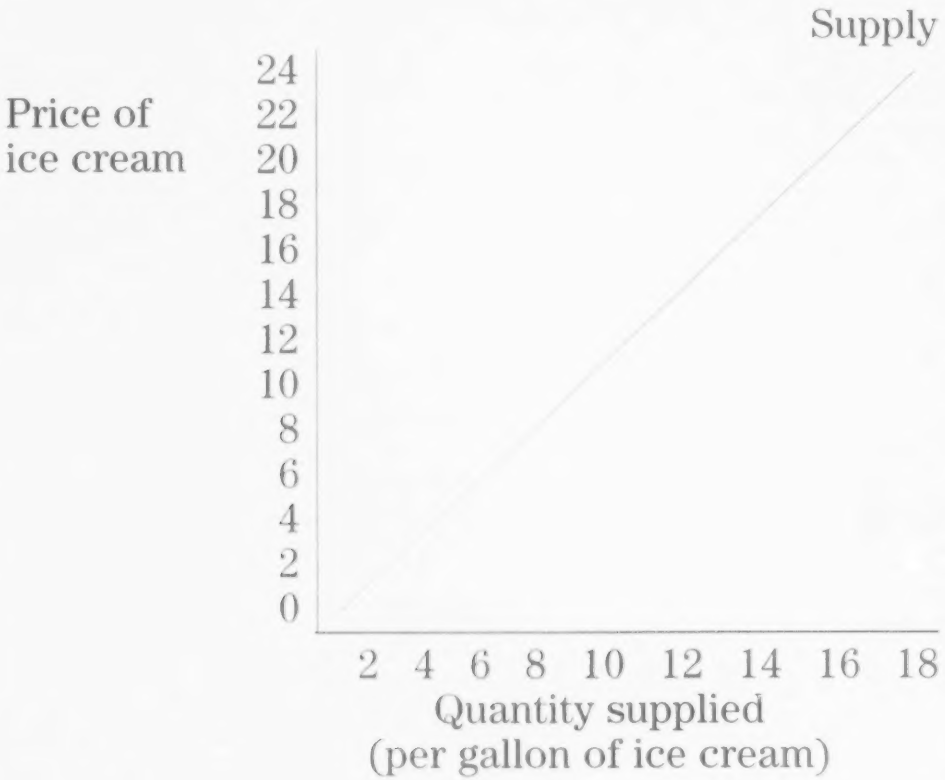
MODEL #2



1. What information does this model convey?
2. What would happen to the amount supplied if the price of ice cream changed from $10 to $24 per gallon?

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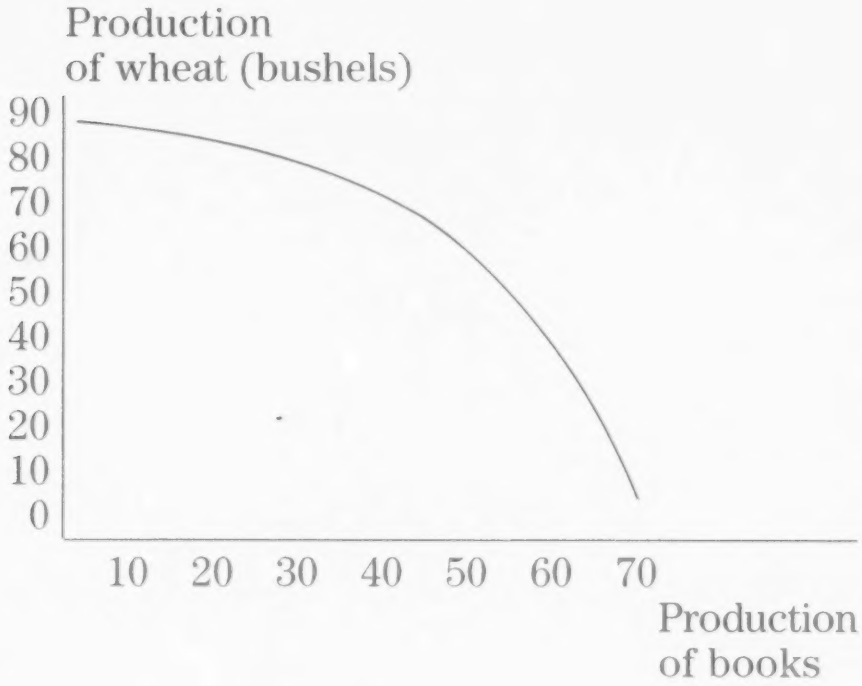
Production Possibilities Curve

MODEL #3



1. Describe the economy that is represented by this production possibilities model. How are resources used?

2. What is the cost to this society of producing 90 bushels of wheat?

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Unit 6
Lesson 2
Making a Macro-Model: Consumers

Introduction

Economics The actions of consumers in the market place have a great influence on the economy as a whole. Collectively, private consumers spend more in our economy than any other segment and consequently they have the greatest impact on what will be produced. Consumer preferences generate demand for specific factors of production, including labor with particular skills. Changes in consumer behavior, whatever the reason, are exceedingly important in fostering economic change.

Reasoning The collective actions of consumers reflect individual choices made by millions of people. As consumers make economizing choices and respond to incentives, they influence resource allocation, price levels, wage rates, and investment decisions. Here is an opportunity for students to apply the basic assumptions of economic analysis to macroeconomic situations in which a system influences individual decisions and individual decisions in turn influence the system.

Concepts

Consumer
Choice
Derived demand
Production
Costs and benefits
Gross Domestic Product

Instructional Objectives

Students will

1. Recognize that their actions as consumers help direct resources to particular uses, help establish prices, and direct a large proportion of economic activity.

2. Identify the major categories of expenditures in consumption including services, food, durables, savings, and other non-durables.

Lesson Description

In this lesson students will review consumer behavior in the aggregate. Relationships that indicate how consumer behavior can be changed will be established. The effect changed consumer behavior can have on the economy as a whole will be described.

Time Required: One class period

Materials

One copy for each student: Handout 6-2-1.
A transparency of Visual 6-2-1.

Procedure

1. Explain that the purpose of this lesson is to examine the important role consumers play in the marketplace. Distribute Handout 6-2-1. Ask the students to read it and to list the factors which changed consumers' behavior in the marketplace — improving some people's quality of life but worsening that of others. Ask:

   A. Why did Mr. Padowski leave school?

   (To begin business as a junk dealer.)

   B. Why has his business become successful?

   (People's tastes changed; today people are interested in buying junk.)

   C. Who has benefitted from people wanting to buy junk?

   (People who sell used merchandise.)

   D. Who has been hurt by people's desire to buy junk?

   (Manufacturers of new merchandise.)

2. Display Visual 6-2-1. Go over the pie chart by explaining each category shown and giving an example of each type of expenditure. Inform the students that every U.S. citizen would have had $13,050.00 after taxes in 1987 if our personal income and taxes had been equally divided. Using this per capita income number, assign the students the task of calculating the per capita amounts spent on services, food, other non-durables, durables, and saving — from the percentages shown on the chart. Have the students compare these numbers with their own per capita family expenditures. Note: when comparing the students' per capita calculations with the expenditures of their families, students should divide their family's annual expenditures by the number of people in their household.

3. Once again display Visual 6-2-1. Ask:

   A. What would cause the size of the pie chart to increase?

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(More disposable income.)

B. What might cause disposable income to increase?

(Answers will range from higher wages to lower tax rates to working more hours.)

4. Continue the discussion by asking the students what can cause the proportion of money we spend in each category to change? Remind the students that this pie chart describes the behavior of U.S. consumers as a whole, and what influences individual consumers also will influence the total. Suggest that the students can use their *Handy Dandy Guide* and past information to answer this question. The answers will include changes in:

The age structure of the population
Tastes
Income
Price and quality of various categories of goods and services
Consumers' expectations about the future
Incentives in general

Closure:

Ask the students to draw a new pie chart that depicts their forecast of what the distribution of consumer spending will be like 25 years from now. Post the charts for comparison and future reference.

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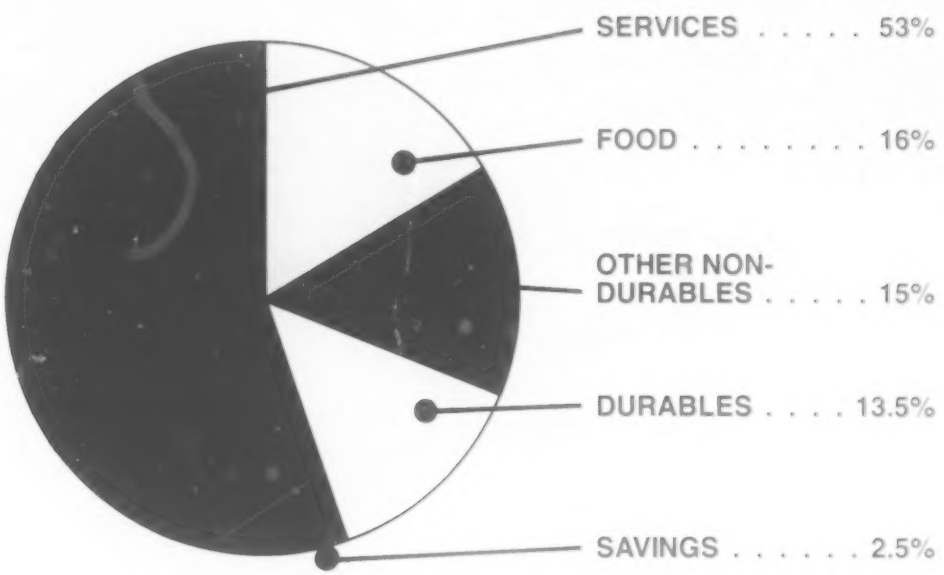
Visual 6-2-1
People Spend A Lot Of Money

1987

Percent of after-tax (disposable) income spent in the United States on:



Per Capita Disposable Income in 1987: $13,050.00

Source: Congressional Budget Office, Washington, D.C.

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Unit 6
Lesson 3
Making a Macro-Model: Investment

Introduction

Economics Investment is an important influence on the economy. What economists mean by investment is spending by business firms and government on capital (plant or buildings), equipment (trucks and ships, etc.), and on inventories. Such spending is one component of the economy's gross national product. Total investment expenditures are made and help raise future output levels if there is a net increase in investment. There are three major components of investment:

1. in new business and residential buildings;

2. In machinery and equipment;

3. In additions to inventories.

Reasoning The key assumptions of economizing and forecasting are demonstrated in this lesson. Investment decisions require people to weigh the anticipated costs and benefits of alternative investments. The potential return from investments is based on forecasts of:

1. Expected returns from the investment;

2. Expectations regarding the future business climate;

3. Amount of technological change;

4. Level of under-utilized capital;

5. The costs of investment including the price of the investment goods and the interest rate.

Concepts

Investment
Gross Investment
Net investment choice
Interest rate
Cost and benefits
Gross Domestic Product

Instructional Objectives

Students will

1. Recognize that investment influences the economy now and in the future by adding to yearly output and improving production potential when there is a net increase in investment.

2. List the variables that influence the decision by businesses to invest.

Lesson Description

In this lesson students see the impact of investment on production. In addition, they practice making decisions regarding investment and in so doing discover the variables that influence investment levels and consequently the economy as a whole.

Time Required

Two class periods

Materials

One copy for each student: Handout 6-3-1 and 6-3-2.

Tools to do the activity in Handout 6-3-1: 2 calculators, 4 rulers, 2 dispensers of transparent tape, 16 pencils, 40 sheets of paper, 1 slide rule, 4 green crayons, 16 paper clips, 4 protractors.

60 Bonus Minute Cards.

Procedure

1. Explain that the purpose of this lesson is to illustrate the importance of making wise investment decisions. Divide the students into four groups. The total number of students in each group does not matter so long as they are equal. Inform the groups that they will be competing with one another in the completion of the series of tasks on Handout 6-3-1 which will soon be distributed.

   ABSOLUTELY NO MATERIALS CAN BE BROUGHT TO THE GROUPS BY THE STUDENTS TO HELP THE GROUPS COMPLETE THE TASKS! No pencils, pens, paper, etc.

2. Inform the groups that they should decide collectively how they will complete the tasks. Display the tools that you will make available to help them be successful. These materials can be purchased with Bonus Minute Cards. Distribute 15 Bonus Minute Cards to each group. These cards can be used to buy the tools of production, or they can be subtracted from the time it takes a group to complete the activity in Handout 6-3-1. The costs (prices) of the tools in minutes are:
   Calculator: 10 minutes
   Pencil: 2 minutes
   Ruler: 3 minutes
   Sheet of paper: 1 minute
   Transparent tape: 4 minutes
   Slide rule: 8 minutes
   Paper clip: 1 minute
   Protractor: 9 minutes
   Crayon: 6 minutes

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3. Distribute Handout 6-3-1 to each group. Since this is a timed activity, begin timing the assignment one minute after each group has received Handout 6-3-4. When the group is finished with its task sheet, they are to bring it to the teacher. Write on the task sheet the total time it took the group to finish. To determine the winning group, correct the sheet by adding one minute for each incorrect response to the time it took the group to complete it. Then subtract from the total time any bonus minutes the group has remaining. The group with the lowest minute total wins.

   Note: while the groups are working on the tasks, they can come to the teacher and buy tools with their bonus minute cards.

4. After the activity is complete, ask:
   A. How many tools did the winning team buy? The losing team?

   B. How were the decisions made to buy or not to buy tools?

      (The students should discuss the relationship between costs and expected benefits.)

   C. What was the most valuable tool for increasing production?

      (Many students will suggest the calculator.)

   D. Is it possible to do the work without this tool?

      (There usually are many ways to produce.)

   E. How would an increase/decrease in the price (cost) of the tools have influenced your decisions?

      (The desire for tools is less at higher prices; more at lower prices.)

   F. In real life, tools are often purchased with borrowed money. How do higher interest rates or lower interest rates on loans influence tool purchases?

      (Higher rates raise the total cost of the tool while lower rates reduce the total costs, encouraging people to buy more.)

5. To check the accuracy of the answers to the questions in Procedure 4 and to find other factors that influence investment in the actual economy, assign the students the task of either interviewing a business person or going to the library. In either case, the students are to search out and list the variables that influence business decisions whether to invest or not to invest. Have the class develop a composite list on the chalkboard, using the results of the students' interviews and/or their library research.

6. Capital investment can have a positive influence on an economy's future production if certain conditions are met. In the next activity, students are to distinguish between *gross* and *net investment*. Distribute Handout 6-3-2 to each student. Ask the students to underline the investments described in the case. Have them re-read the case and circle the investments that will increase the future productive capacity of the economy. Upon completion of the assignment, discuss the difference between gross investment and net investment. Be sure to stress that gross investment does not subtract from total investment the amount devoted to replacing worn out capital. For example, in 1985, 670 billion dollars was spent on investment goods in the United States but 439 billion dollars worth of capital was used to replace worn-out capital, leaving 231 billion dollars of net investment.

Closure

Inform the students that you have just won the lottery and want to conduct an experiment. The experiment relates to investment decisions they would make if they had $10,000 given to them. The students should assume you (the teacher) are providing each of them with $10,000 for investment. The students must write a one page paper describing what investments they would make and why.

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Answers to Handout 6-3-1

1. (a) 199,776
   (b) 280,191
   (c) 201,387
   (d) 336,665
   (e) 227,096
   (f) 244,573

2. (a) 22
   (b) 398
   (c) 7,844
   (d) 886,874
   (e) 989,000,003

3. (a) 21
   (b) 672
   (c) 662,256
   (d) 96,795,090
   (e) 867,872
   (f) 8,976,534,023,457

4. (a) 2
   (b) 3.833
   (c) 14.676
   (d) 113.627
   (e) 23,110,338

5. (a) y = 10
   (b) 36
   (c) 28

6.

7.

8. An airplane of any style that flies.

9. Group specific.

10. A reasonable picture of the teacher.

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Bonus Minute Cards

Cut along lines

BONUS MINUTE	BONUS MINUTE
BONUS MINUTE	BONUS MINUTE
BONUS MINUTE	BONUS MINUTE
BONUS MINUTE	BONUS MINUTE
BONUS MINUTE	BONUS MINUTE
BONUS MINUTE	BONUS MINUTE

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Unit 6
Lesson 4
Making a Macro Model: Government

Introduction

Economics The economic functions of government in a modified market economy such as that of the United States are many and varied. In our macro-model, some government functions will be shown as more important than others, for we are only interested in functions that have a direct influence on spending and output. These functions include redistributing income, stabilizing the economy by minimizing unemployment and inflation, and promoting economic growth. The other economic functions of government are also very important, but they have a more indirect effect on the economy. If an economy is not fully employed, changes in government policies can usually influence the level of output. If taxes are decreased and/or spending is increased, the GDP tends to rise in the short run. If taxes are increased and/or spending is decreased, GDP tends to fall in the short run.

Reasoning This lesson relates to two assumptions in the *Handy Dandy Guide*. The consequences of choices — in this case, government policies — lie in the future. As voters, we must forecast whether the policies recommended by government leaders will work as predicted. Second, choices are influenced by the economic system. As changes occur in one part of the system (government policy) the choices made in other parts of the system (by consumers and investors) will be influenced.

Concepts

Government Spending
Taxation
Gross Domestic Product

Instructional Objectives

Students will

1. Recognize that government plays a major role in the economy and that decisions made by people in government will influence total output, inflation, employment rates, and overall resource allocation.

2. State the relationships that exist between government policies and the economy.

Lesson Description

In this lesson students will see how the government affects the economy and influences its Gross Domestic Product.

Time Required

One class period

Materials

One copy for each student: Handout 6-4-1 and 6-4-2.

Procedure

1. Tell the students that in this lesson they will learn about the important role the federal government plays in our economy and about the direct impact on them of decisions made by people in government.

2. Distribute Handout 6-4-1. Discuss the data using the following questions:

   A. What information is included in the table?

   (Broad categories of receipts and expenditures for the national government.)

   B. What is the largest item of receipts for the federal government?

   (Individual income taxes.)

   C. What is the total amount of receipts for 1986?

   ($769,091,000,000.)

   D. What is the largest item of expenditure for the federal government?

   (Defense Department.)

   E. Was the federal government's budget in balance in 1986?

   (No, it had a deficit of $220,698,000,000.)

3. Distribute Handout 6-4-2. Ask the students to use their economic reasoning skills to predict how various groups in the economy will react to the proposed changes in economic policies. Students should vote on policies in accordance with the rules provided. Encourage students to discuss their predictions. While student responses may vary, stress the importance of the relationship between government decisions and their impact on individuals and the economy as a whole.

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Closure

Remind the class that the federal government is a major force in the economy. It spends billions of dollars each year through numerous government agencies. Changes in government spending can alter the economy as a whole.

Answers for Handout 6-4-2.

Case #1					
1. No	2. Yes	3. No	4. No	5. Yes	GDP +
Case #2					
1. Yes	2. Yes	3. No	4. Either Yes or No	5. Yes	GDP Uncertain
Case #3					
1. No	2. No	3. No	4. No	5. No	GDP -
Case #4					
1. Yes	2. No	3. Yes	4. Yes	5. No	GDP +
Case #5	2. Yes	3. Yes	4. Yes	5. Yes	GDP +
1. Yes					
Case #6					
1. No	2. No	3. NO	4. Yes	5. No	GDP Uncertain

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Unit 6
Lesson 5
Making a Macro-Model: Imports and Exports

Introduction

Economics International trade is becoming a more important part of the economy of many countries. More and more products are being exported, which, of course, means that many countries are consuming an increasing number of foreign-made products. In order to determine the influence of foreign trade on an economy, it is important to distinguish between what is made within the economy for export and what is brought into the economy as imports. Traditionally, in order to calculate accurately the productive activity (GDP) within the U.S. (or within any other country), the value of imports is subtracted from exports. The resulting number allows us to avoid distorting our measures of production levels by adding foreign output to our domestic output.

Reasoning The decision to buy imported products or to sell exports is influenced by the same assumptions that govern domestic economic behavior. Students should recognize that purchasing foreign-made products results from purposeful, economizing behavior.

Concepts

Imports
Exports
Gross Domestic Product

Instructional Objectives

Students will

1. Differentiate between the effects of imports and exports on the U.S. economy.
2. Name the variables that influence consumers' decisions to buy domestic or foreign-produced products.

Lesson Description

In this lesson, students will distinguish between imports and exports and understand the reasons people have for choosing foreign-made or domestically-made products. In addition, they will learn how trade influences a country's Gross Domestic Product.

Time Required

Two class periods

Materials

One copy for each student: Handout 6-5-1 and 6-5-2.
A transparency of Visual 6-5-1.

Procedure

1. To illustrate the decision-making process people follow in deciding whether to buy products produced domestically or produced abroad, an interview/survey will be conducted by every student. Distribute Handout 6-5-1. Ask the students to interview consumers in order to find out what purchases they have made recently, whether the products were foreign or domestically produced, and what caused the consumer to buy from foreign or domestic sources.

   When the students have completed this task, discuss the results. List the primary reasons people give for buying domestically-produced and foreign-produced products.

2. Display Visual 6-5-1. Discuss the data using the following questions:

   A. What information is included in the tables?

   (Amounts and types of imports and exports of goods and services.)

   B. What is an import? An export?

   (Imports are products or services that are sold to a country different from the one which produced them. Exports are products produced in one nation and sold to buyers in other nations.)

   C. Did foreigners buy more U.S.-made goods and services than American buyers bought foreign goods and services?

   (In 1986 foreigners bought fewer American-made goods and services than Americans bought of foreign-made goods and services.)

   D. Are foreign-made products purchased by Americans part of our GDP?

   (No, GDP is a measure of a nation's own production.)

   E. Are U.S. products purchased by foreigners part of our GDP?

   (Yes, these are products produced here; they are consumed abroad.)

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Closure

It has now been established that Americans buy more foreign-made goods and services than foreign consumers buy of ours. Using the *Handy Dandy Guide* and Handout 6-5-2, assign the students the task of restructuring the environment of J.J., a U.S. buyer of foreign products, so he will want to buy more American-made products.

Upon completion of the assignment, select students to report on their suggested changes in the economic environment. The class then should evaluate how effective the students' suggestions might be, using the *Handy Dandy Guide* as a reference.

Sample Responses to Handout 6-5-2.

J.J. is a 40-year-old who works in the automobile industry. He is married, with two young children. Although J.J. earns a good hourly wage, he has little money saved and many bills to pay. Over the years, J.J. has seen his overtime pay reduced because of foreign competition in the automobile market. Consequently, J.J. buys American-made products whenever possible.

J.J.'s latest purchases include a used Ford sedan and a new refrigerator. J.J.'s wife, M.J., is looking at some new house furnishings made in South Carolina.

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Visual 6-5-1
United States International Transactions, 1986 (in millions of dollars)

Exports of Goods and Services

Merchandise (excluding military)	$224,361
U.S. military sales	$ 8,903
Travel	$ 12,913
Passenger fares	$ 3,562
Other transportation	$ 15,190
Royalties, fees, services from foreigners	$ 19,068
U.S. government services	$ 602
Receipts from U.S. assets aboard	$ 88,209
Transfers (military grant program)	$ 101
Total Exports	$372,909

Imports of Goods and Services

Merchandise (excluding military)	$368,700
Direct defense expenditures	$ 12,565
Travel	$ 17,627
Passenger fares	$ 6,842
Other transportation	$ 17,099
Royalties, fees, services to foreigners	$ 9,254
U.S. government services	$ 1,696
Payment on foreign assets in U.S.	$ 67,365
Total Imports	$501,148

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Unit 6
Lesson 6
Be a *Capstone* Fearless Forecaster

Introduction

Economics Factors that influence the economy are constantly changing. If we monitor these factors, we can formulate predictions about future economic activity. When economic activity is strong, employment and earnings rise and people in general enjoy a higher standard of living. When activity falls off, unemployment rates rise, earnings level off, and the general well being of the average citizen declines.

This lesson introduces students to an index of the economy's predictive factors. It also allows both students and teachers to engage in some real life forecasts of future economic activity.

Reasoning The lesson illustrates the economic assumption that the consequences of choices lie in the future. The economy of the future is being determined in the present by decisions of households, firms and government. To see how the current activities precede changes in the general economy, students are introduced to the Index of Leading Economic Indicators and taught a simple method of using data from this Index to make predictions about the economy.

Concepts

Index of Leading Economic Indicators (ILEI)
Measure of Economic Activity
  Gross Domestic Product
  Index of Industrial Production
Forecasting

Instructional Objectives

Students will:

1. Understand how the Index of Leading Economic Indicators can be used to forecast the direction of the economy.
2. Practice economic forecasting by using historical data, and check the accuracy of their predictions.
3. Generate forecasts of economic performance and monitor the accuracy of their forecasts.
4. Monitor announcements about the Index of Leading Economic Indicators and revise their forecasts based on the new information.

Lesson Description

In this lesson students will use simple methods of interpreting the pattern of changes in the ILEI and forecasting the health of the economy. It is possible to extend this lesson throughout the semester, with periodic updates of the indicators introduced in the lesson.

Time Required

Three class periods (depending on options)

Materials

One copy for each student: Handout 6-6-1, 6-6-2, 6-6-3, 6-6-4, 6-6-5, 6-6-6, 6-6-7, and 6-6-8.

Procedure

1. Explain to the students that the purpose of this lesson is to help them predict their economic future. Ask:

   A. Do you think that job opportunities will be good in the coming year?

   B. Will you or your family be better off economically next year?

2. Point out that economists and people in business share your keen interest in future economic directions. Distribute Handout 6-6-1. Write the following questions on the board to guide the students while they read. Then discuss the questions:

   A. What does the Index of Leading Economic Indicators tell us?

   (It is like a barometer that helps measure the oncoming condition of the economy.)

   B. How is the ILED a leading indicator?

   (It precedes or "leads" actual economic changes.)

3. Distribute Handout 6-6-2. After the students have examined it, discuss several of the eleven indicators.
4. Distribute Handout 6-6-3. Ask the students to read it to identify which direction the ILEI was predicting for the economy in November of 1988. Point out that the eleven indicators are rarely unanimous in their direction. The ILEI, therefore, is a composite figure to help us make sense of diverse information.

NOTE: Economists use many forecasting techniques — from econometric models with hundreds of equations and variables to the infamous SWDG (stupid wild donkey guess). The forecasting exercise which follows introduces students to an admittedly elementary, but

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easy-to-use, technique. It is not a technique you will find in any economic text. It is just a quick and dirty, *but informed*, prediction procedure. Do not let your students be overwhelmed by the numbers.

There is an option that allows you to omit half of the exercise with no loss in continuity. In any case, your students can come away from this lesson with a more enlightened understanding of the ILEI than most people have.

5. Lead the class through the first of two practice rounds.

   A. Distribute Handout 6-6-4.

   B. Explain the headings for the first two columns:

      Date These are the month and year (i.e., 7/79 is July 1979) of the observations on the Index values.

      Annualized percentage change in ILEI This is the month-to-month percentage change in the Index. The figure is annualized. That is, the figure is increased to show what percentage change would occur for the year if we had twelve months in a row with this size monthly change. [See: Procedure J, *CONTINUING THE FORECAST*, for more information on annualized figures.]

      A negative figure indicates the Index has fallen from the previous month.

   C. Complete the blanks in column three. Do three example months as a demonstration.

      (Do three example months):

      1) In this column ask the students to look at the monthly changes in the ILEI for a particular month and the five previous months. The first example month is 2/79. In the blank on the 2/79 line fill in the number of positive changes in the ILEI during this and the previous five months. The information is:

Date	Annualized % Change In Index of LEI	
9/78	5.0	
10/78	9.4	
11/78	-2.4	
12/78	-3.4	
1/79	4.2	
2/79	-1.6	3

      Since there are three months with positive changes (9/78, 10/78 and 1/79) put a 3 in the 2/79 blank.

      The second example month is 3/79.

10/78	9.4	
11/78	-2.4	
12/78	-3.4	
1/79	4.2	
2/79	-1.6	3
3/79	15.7	3

      Again there are three positive changes in the last six months, so put a 3 in the 3/79 blank.

      The third example month is 4/79.

11/78	-2.4	
12/78	-3.4	
1/79	4.2	
2/79	-1.6	3
3/79	15.7	3
4/79	-21.0	2

      This time there are only two positives in the last six months, so put a 2 in the 4/79 blank.

      2) Have the students complete the remainder of column 3.

      You might emphasize here that these are actual observations, not contrived or hypothetical examples. The completed column 3 should be:

2/79	3
3/79	3
4/79	2
5/79	3
6/79	3
7/79	2
8/79	2
9/79	2
10/79	2
11/79	1
12/79	2
1/80	2
2/80	2
3/80	2
4/80	3
5/80	3
6/80	2

   D. Fill the blanks in column 4.

      1) *Do two examples:*
      In this column we are going to take the ILEI figures for a particular month and the preceding five and average their values. To generate this average, the students should add the six values together (observing any negative signs) and divide the total by six. The value for this average should be entered in the blank for the appropriate month.

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The first example month 2/79

The information:

9/78	5.0	
10/78	9.4	
11/78	-2.4	
12/78	-3.4	
1/79	4.2	
2/79	-1.6	1.8 (or 1.9 rounded)

First, sum the figures for the six months
(5.0 + 9.4 - 2.4 - 3.4 + 4.2 - 1.6 = 11.2).

Second, divide this total by 6.

11.2/6 = 1.86

If you want students to round their numbers, put 1.9 in the 2/79 blank. Since this is a rough technique already, it doesn't hurt to just drop all digits after the tenths place.

The second example month 3/79

The information is:

10/78	9.4	
11/78	-2.4	
12/78	-3.4	
1/79	4.2	
2/79	-1.6	1.8
3/79	15.7	3.6

First, sum the figures (9.4 -2.4 -3.4 + 4.2 -1.6 + 15.7 = 21.9)

Second, divide the sum by 6

21.9/6 = 3.65

Put 3.6 in the 3/79 blank.

2) There are fifteen blanks left to fill in. Assign the remaining fifteen months to students (assign some months to more than one student until everyone has one). Have them calculate the averages for their month. The remaining values are:

4/79	-1.4
5/79	0.7
6/79	-0.1
7/79	-2.5
8/79	-3.2
9/79	-5.8
10/79	-5.8
11/79	-9.6
12/79	-7.6
1/80	-7.2
2/80	-8.5
3/80	-6.5
4/80	1.6
5/80	3.5
6/80	1.2

NOTE: If, after reading over the last procedure, you wish to skip the calculation of the averages, you can do so with no loss in continuity. When it comes to the description of the measures *persistence* and *magnitude*, concentrate only on the persistence measure (sum of the positive changes).

E. Introduce the "Quick and Dirty" handout (Handout 6-6-5) and the accompanying chart (Handout 6-6-6). The Chart may be reproduced as an overhead transparency, and you may just explain the concepts of Persistence and Magnitude.

Have the students refer to their filled in worksheet for Practice Run I.

1) Where does the Persistence indicator reach its most negative value?

(11/79 with a value of 1.)

2) Where does the Magnitude indicator reach its most negative value?

(On 11/79 with a value of -9.6.)

From the Persistence Chart, we can see a value of 1 (only one positive in the last six months) indicates the economy is *very likely* to suffer a downturn in the coming four to six months.

From the Magnitude Chart we can see a value of -9.6 indicates the downturn is likely to be *quite strong*.

From these two pieces of information, we could forecast that a very strong economic decline would begin from four to six months after 11/79 (between March and May of 1980).

F. *Reveal the Results*

List the following annualized percentage changes in industrial production in column five. First note that one or two isolated months of decline do not indicate problems for the economy. Emphasize that the beginning of a severe decline in economic activity appears to begin in April of 1980 (the midpoint of our forecast).

2/79	6.7	11/79	0.0
3/79	3.3	12/79	0.0
4/79	-13.2	1/80	3.3
5/79	11.5	2/80	1.1
6/79	0.0	3/80	0.0
7/79	-4.2	4/80	-22.1
8/79	-3.2	5/80	-27.6
9/79	2.2	6/80	-12.7
10/79	6.7	7/80	-2.3

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G. Forecast Practice Run II (Handout 6-6-7)

Decide on the basis of the students' work in the first practice run whether they need another. To conduct this Practice Run just repeat the steps from the first practice. You need not illustrate examples. The only difference in this example is that it allows students to forecast the end of a recession and the beginning, in January of 1983, of a sustained period of expansion.

RESULTS OF COLUMN FOR PRACTICE RUN II

Date	For Last Six Months # Positive	Average	Annualized % Change Industrial Production
3/82	2	-6.2	-12.7
4/82	3	-1.0	-13.8
5/82	3	-0.8	-9.9
6/82	3	-0.7	-6.7
7/82	4	1.9	-5.7
8/82	3	0.8	-5.7
9/82	4	4.4	-7.9
10/82	4	4.1	-9.1
11/82	4	4.9	1.2
12/82	5	8.2	1.2
1/83	5	14.4	26.7
2/83	6	17.8	9.8
3/83	6	19.9	11.0
4/83	6	21.5	17.4
5/83	6	23.0	15.8
6/83	6	24.9	10.6
7/83			24.7
8/83			21.5
9/83			25.1
8/87	6		6.4
9/87	6		4.8
10/87	6		4.9
11/87	5		1.5
12/87	5		0.1
1/88	4		-0.8
2/88	4		0.0
3/88	4		0.1
4/88	4		1.0
5/88	4		1.9
6/88	4		4.4
7/88	4		3.7
8/88	4		2.8
9/88	3		2.4

H. Debrief Practice Run II

After you have revealed the results, point out two things. First, we probably would have been late in our forecast of the beginning of the boom since our Persistence indicator did not reach 5 until December 1982 and our Magnitude indicator did not exceed 8 until December. One thing to remember though — it wasn't clear until March or April of 1983 that the recovery had already begun (since isolated monthly changes aren't significant). The second thing to point out is that our Magnitude indicator gave us repeated *very strong* signals in April, May and June of 1983 that correctly foretold the dramatic expansion of July-September 1983.

I. *The Real Thing*

Distribute the Forecast Worksheet (Handout 6-6-8) and have the students complete it (or distribute the tasks to individual students). The values of our indicators from these recent figures are:

At the writing of this lesson, there was concern that the expansion might be coming to an end, since our Persistence indicator had fallen over the past year from 6 to 3. The Magnitude indicator was, although positive, also not large enough to provide comfort that the good times would continue to roll.

Closure

If you do this lesson early in the term, you will be able to add information to this forecast worksheet as the school year progresses. Figures on the ILEI are released near the last day of the month by the Commerce Department. This announcement is usually reported on the evening news and almost always reported in the business sections of newspapers the next day. For past information on the ILEI and the Index of Industrial Production, the best source is:

Business Conditions Digest
Bureau of Economic Analysis
U.S. Department of Commerce
Washington, D.C. 20230

This digest is published monthly.

While our quick and dirty approach to analyzing these figures will not make us the first to forecast the next recession or boom (especially since some people have been "forecasting" a recession since 1986; of course they will eventually be right), it still gives us a reasonably informed basis for our prediction, and that, in and of itself, is an accomplishment of note.

To use the monthly percentages that are usually announced by the press, you will have to *annualize* them (that is, make them the size of year long changes if the months continued for a year). There are two ways to do this:

1) The method the Department of Commerce uses is to:

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	STEPS	EXAMPLE
a)	take the monthly % change	ILEI increased from last month by 2.3%
b)	divide it by 100	2.3/100 = .023
c)	add it to 1	.023 + 1 = 1.023
d)	take this sum to the twelfth power	$(1.023)^{12}$ = 1.313
e)	subtract one	1.313 - 1 = .313
f)	multiply by 100	.313 x 100 = 31.3
g)	your product is the annualized % change	31.3%

That is, if the index went up 2.3% each month for a year, it would be 31.3% higher at the end of the twelve months.

2) A simpler, but slightly less accurate, way is to

a)	take the monthly % change in the index	ILEI increases from last month by 2.3%
b)	multiply it by 12	2.3 x 12 = 27.6
c)	Your product is the estimate of the annualized change	27.6%

The degree of approximation for various monthly percentage changes can be seen from the following.

A Monthly % Change of	Would Yield An Annualized Change Using The: Commerce Dept. Method	Simple Method
.5%	6.1%	6%
1.0%	12.6%	12%
1.5%	19.5%	18%
2.0%	26.8%	24%
2.5%	34.4%	30%

So, although it won't be perfect, if you don't have a calculator with a variable power function, use the simple "times 12" approach.

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Sample Test Items

Unit 6
Forecasting Our Economic Future

1. The consequences of our decisions

   *A. Occur in the future.

   B. Occur in the past.

   C. Need to be considered.

   D. Are experienced before the choice is made.

2. A device that is used to show how variables relate to one another, or to replicate parts of reality, is called

   A. An equation.

   *B. A model.

   C. A machine.

   D. None of the above.

3. A model is considered to be good when it

   *A. Explains reality.

   B. Is complicated.

   C. When it uses theories and mathematical equations.

   D. When it is easy to use.

4. What item is not included in our GDP?

   A. Domestic investment.

   *B. Consumption of foreign products.

   C. Foreign purchases of our products.

   D. Government expenditures.

5. Which item is not included in net investment?

   A. New residential buildings.

   B. Additions to inventory.

   C. Purchases of machinery and equipment.

   *D. Replacement of worn-out capital.

6. People will decide to invest when

   *A. The benefits outweigh the costs.

   B. Interest rates are low.

   C. Interest rates are high.

   D. The economy is fully employed.

7. Generally, an increase in government expenditures in the short run will

   A. Increase unemployment levels.

   B. Decrease taxes.

   *C. Increase employment.

   D. Lower GDP.

8. Consumer choices

   A. Influence the price of products.

   B. Allocate resources.

   C. Indirectly determine wage rates.

   *D. All of the above.

9. GDP is related to

   A. Consumption expenditures.

   B. Interest rates.

   C. Value of the dollar.

   *D. All of the above.

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Sample Essay Questions: Conversations About Economics

The following are essay questions designed for Unit 6. Students should be asked to read the items and evaluate the arguments of each speaker. In evaluating the arguments, they should answer the following questions:

- Is the speaker using economic or non-economic reasoning? How?

- Do you agree or disagree with the argument?

I. Economic Models vs. Economic Reality

Rob Crum Do you believe all that supply and demand stuff? I think the real world is more complicated than supply and demand curves.

Vic Panozzo For sure. Supply and demand depends on perfect competition and perfect competition doesn't even exist. So how can supply and demand curves help us understand how prices are determined?

II. Investment and the Economy

Phyllis Bacon Investment depends on interest rates. If the Fed increases the money supply, interest rates will be low. That should stimulate enough investment to keep the economy healthy.

Glen Chu I think you're oversimplifying. Investment also depends on economic conditions. Why would businesses borrow money to expand if they can't sell all the products they're making now?

Art Smithson Investment also depends on savings. Businesses can't borrow the money unless someone saves it. We need to encourage people to save more. Did you know that Americans save a smaller percentage of their income than people in every other industrialized democracy?

III. Dealing with the Deficit

Pat Dodd The budget deficit is getting out of hand. The politicians don't have the guts to reduce the deficit. We need a constitutional amendment that would require the government to balance its budget every year.

Dan Roberts Wait a minute! Wouldn't that tie the hands of government? I read in economics that the government should increase spending and lower taxes if it wants to fight a recession. A balanced budget amendment would take away one of the government's fiscal policy tools.

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Unit 6
Answers for Teachers and Discussion Points on Sample Essay Questions

I. Economic Models vs. Economic Reality

Both Rob Crum and Vic Panozzo are wrong. The test of an economic model is not how closely it represents reality. To be useful, economic models must simplify reality. The validity of a model depends on how well it explains or predicts the consequences of human behavior. Supply and demand models both explain and correctly predict the price-quantity consequences of human behavior.

II. Investment and the Economy

Although investment is affected by interest rates, it is also affected by many other variables. If the economy is strong, businesses will invest more in order to have the capacity to respond to increased consumer buying power. If aggregate demand is low, businesses will not want to expand. Therefore, Glen Chu's answer is better than Phyllis Bacon's.

Art Smithson's point is well taken. In order to have funds to invest, consumption must be postponed and savings increased. This is the argument that supply-side economists use when advocating incentives to save and invest. The chief incentive they recommend is lower taxes.

III. Dealing with the Deficit

Many economists believe that government budget deficits during a recession are not a cause for concern. Increases in government spending and decreases in taxes can stimulate aggregate expenditures and give the economy a needed shot in the arm. Therefore, these economists, particularly Keynesians, would oppose a balanced budget constitutional amendment. Some monetarists and rational expectationists do support the balanced budget amendment.

Most economists oppose large budget deficits during prosperity. If the government borrows large amounts of funds, consumers and businesses will be crowded out of the market. This will hurt consumer spending on durable goods and investment. And funds that could improve government programs must be spent paying interest on the debt.

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Unit 7
International Economics Issues

	Letter to the *Capstone* Teacher
Lesson 1	Solving World Trade Mysteries: The Final Chapter, The Future
Lesson 2	Why Do People Trade?
Lesson 3	Why People Trade: Comparative Advantage
Lesson 4	Trade Barriers
Lesson 5	Balance of Payments
Lesson 6	Ripples
Lesson 7	Foreign Currencies and Foreign Exchange
Lesson 8	Exchange Rates
Lesson 9	Disagreements Over World Trade
Test	Sample Test Items

"Rich countries and poor countries: Why do such differences exist? The principles of economic reasoning help explain differences among countries."

Unit 7
Letter to the *Capstone* Teacher

Dear *Capstone* Teacher:

We begin our last unit as we did our first — a student quiz with five false statements.

If there is any broad area of policy about which almost all economists agree, it is international trade. Yet there probably is no other area in which the advice of economists is so universally ignored by the public and politicians. This has led Alan Blinder to conclude that there is a "Murphy's Law of Economic Policy." According to Blinder, "Economists have the least influence on policy where they know the most and are most agreed; they have the most influence on policy where they know the least and disagree most vehemently" (Blinder, 1987).

Why do economists stand together behind free and open trade? They start with the assumption that the purpose of trade is to improve the welfare of consummers. "Consumption is the sole end and purpose of all production," said Adam Smith, "and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer" (Rogge, 1976). This makes Statement 1, "The economic goal of international trade is to provide jobs for workers," false.

Economists believe that two people or two nations will not trade voluntarily unless both parties believe they will gain by the trade. Economists quantify this reasoning with the law of comparative advantage. Most people agree that if one country produces cars more efficiently and another country produces chemicals more efficiently, the nations should specialize in what they do better and trade for what they do worse. But what if a country has a cost advantage in both cars and chemicals? Economists say they can still trade on the basis of what they do comparatively better. For example, if Japan has a big cost advantage over the U.S. in cars and a small cost advantage in chemicals, Japan should specialize in the production of cars. If the U.S. specializes in chemicals, both nations will gain by trade. In this unit, students will learn how the law of comparative advantage benefits people and nations that trade.

"This is fine for consumers," claim the critics of free trade, "but how can consumers benefit if trade has cost them their jobs?" The main culprit according to this critical view has been Japan, with whom the U.S. has had huge trade deficits in recent years. "If Japan taxes our food, let's tax their cars," protectionists cry.

There are several fallacies in this reasoning. First, we are concerned with our balance of trade among all nations, not just one nation. Secondly, if we buy goods from Japan more inexpensively, we can use our scarce resources to produce other goods. The production of these goods creates jobs. Finally, what will the Japanese do with the dollars they gain from trade if they don't buy U.S. goods with them? They can invest them in the U.S., and these investments create jobs. During the past ten years, 20 million jobs have been created in the U.S. That is why Statement 2, "If the U.S. imports more products from Japan than it exports to Japan, the total number of jobs in the U.S. will decline," is false.

Statement 3, "Tariffs protect our standard of living by reducing competition from cheap foreign labor," is false. A nation's standard of living depends on its productivity. High tariffs hurt productivity because domestic industries no longer compete with foreign companies. Tariffs and quotas are supported because people can see the jobs saved in protected industries but cannot see the jobs destroyed in unprotected industries, or those not created at all. High protective tariffs damage economic efficiency, raise prices to consumers, and redistribute income from consumers and unprotected industries to protected industries. Even the jobs that are saved have a high cost. One study (Blinder, 1987) estimated that restricting foreign automobile imports cost $105,000 for each auto worker's job saved and $750,000 for each steelworker's job saved. This is why social philosopher Henry George stated a century ago that "protectionism does to a nation in peacetime what its enemies do to it in wartime" (Blinder, 1987).

Statement 4, "A 'strong dollar' in international currency markets is good for the U.S. because it reduces the amount of imports purchased by Americans," is false because a strong dollar will decrease the price of imports. A strong dollar means that each dollar buys more foreign currency. A weak dollar increases the prices of imports and decreases the prices of exports. This is good for some U.S. producers, but raises prices for consumers.

Statement 5, "The existence of large, rapidly growing populations is the principal reason for poverty in third world countries," is frequently mentioned by the media as the third world's most important problem. Certainly a growing population makes raising a country's standard of living more difficult. However, a nation's standard of living depends on its resources (land, labor, capital, and entrepreneurship). As students learn in this

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unit's opening letter, Japan is richer than Argentina because Japan has more capital, better labor, and more entrepreneurship. Argentina has more natural resources. Students will learn in this unit that human and real capital, nurtured by a stable political system, can improve the world's standards of living.

Sincerely,

The *Capstone* Authors

Sources

Blinder, A.S. *Hard Heads, Soft Hearts*. Reading, MA: Addison-Wesley Publishing Company, 1987.

Rogge, B. *The Wisdom of Adam Smith*. Indianapolis: Liberty Press, 1976.

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UNIT 7
Lesson 1
Solving World Trade Mysteries: The Final Chapter, The Future

Introduction

Economics This lesson reintroduces some basic principles underlying all economic analysis — principles related to trade, to economizing choices, to accommodating scarcity in a world of unlimited wants. Students should know these principles and use them to build their knowledge of the world economy.

Reasoning All the principles and skills of economic reasoning previously learned in this *Capstone* course will be used throughout Unit 7. Lesson 1 reminds students to use their previously learned skills to understand new economic content.

Concepts

Economizing
Incentives
Economic systems
Trade

Instructional Objectives

Students will

1. List six assumptions which guide economic analysis.
2. Identify key ideas that will be studied in Unit 7 including the importance of international trade to our economy, why people engage in trade and why some countries are rich while others are poor.

Lesson Description

This lesson introduces students to the contents of Unit 7 with a letter from the authors and a short survey highlighting important world trade issues.

Time Required One class period

Materials

One copy for each student: Handout 7-1-1 and 7-1-2.

Procedure

1. Introduce students to the unit by explaining that a world economy exists and always has existed. Trade conducted among people with different languages, political philosophies, ethnic heritages and religious preferences increases virtually constantly. Unit 7 introduces students to several important issues pertaining specifically to international trade.
2. Distribute Handout 7-1-1. Have students take the quiz. Then discuss their responses. Suggested answers appear in the Letter to the *Capstone* Teacher. Summarize their reactions and keep this information for review in the closing lesson of this unit.
3. Distribute Handout 7-1-2; ask the students to read it carefully.
4. After they read the letter, conduct a short discussion that reinforces the main points the letter makes.

   A. What were the characteristics of Country1?

   (Fertile land, vast natural resources.)

   B. What were the characteristics of Country 2?

   (Little land, few natural resources, devastated during World War II.)

   C. Which countries are these?

   (Country 1 is Argentina, Country 2 is Japan.)

   D. Which principles of economic reasoning might help explain this outcome?

   (Economic systems influence choices and incentives; voluntary trade creates wealth.)

Closure

Remind students to use the *Handy Dandy Guide* as they work on Unit Seven. This unit will enable them to practice using the knowledge and skills previously learned in the course.

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Unit 7
Lesson 2
Why Do People Trade?

Introduction

Economics Trade is the voluntary exchange of goods and services. The decision to trade is made because two or more parties involved in the exchanges expect to gain. When one or both of the trading partners believe they can no longer gain from trading, the exchanges will stop.

Reasoning People judge their satisfaction with a trade by economizing (weighing the expected gains against the expected losses.) Students should use their economic reasoning skills to explain the choices the participants make in the trading simulation contained in this lesson.

Concepts

Trade
Incentives
Costs
Benefits

Instructional Objectives

Students will

1. Participate in a trading session.
2. Describe the incentives which encourage them to trade.
3. List the anticipated costs and benefits of their trade.
4. Explain the actual consequences of their trade.

Lesson Description

This lesson involves students in a trading simulation designed to illustrate a complex marketplace in which goods and services are traded. Students use this experience to investigate, in depth, the conditions that encourage or discourage trade among individuals.

Time Required

One class period.

Materials

A large number of small, easy to exchange items — such as miniature candy bars, small boxes of raisins, tiny bags of wheat germ, pencils, stickers, fruit, vegetables, library passes, answers to next week's quiz — placed in brown bags for each student.

Adapted from *Teaching Strategies for International Trade*. National Council on Economic Education, 1988.

Procedure

1. Tell students that today they have an opportunity to participate in a trading activity. The purpose of the activity is to explore reasons people have for trading.

2. Ask the class, "Why do people trade?" Put a few student answers on the board. State that these responses are hypotheses. Now the class must find some evidence to support or reject these hypotheses.

3. Describe the following situation to the class. Imagine that a teenage driver pulls up to a self-serve gasoline station, puts $10 worth of gasoline into the car and pays the station owner $10. Who gained and who lost in this situation?

   (Both people gained and lost. The driver lost $10 of purchasing power and gained several gallons of gasoline. The owner lost several gallons of gasoline and gained $10 of purchasing power.)

4. Distribute the trading items *unequally* to the students. For instance, give quiz answers to a student who has no other items, give a few unlucky students only one or two less popular items, provide most students with several similar items (e.g., 10 Milky Ways or 20 carrot sticks), and give a few students an abundant number of three different items (e.g., 10 bags of wheat germ, six Butterfingers and eight radishes). Place each student's items in a small brown bag so only the individual student really knows what he or she has to trade. In preparing the bags, try to create strong contrasts — e.g.,
   students with very little to trade,
   students with many unpopular items,
   students with a few very popular items,
   students with various items to trade.

5. Provide a five-to-ten minute trading session in which students may conduct any trades they choose to make. No one is required to participate in the trade.

6. At the end of the trading session, call students back to order. Have them display on their desks the items they now possess as a result of the trading session. Discuss the results of the simulation. Ask:

   A. How many of you made trades?

      (Have a show of hands.)

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B. Which items did you trade?

(Get some sample responses.)

C. Which items were most popular; least popular?

D. Did any of you trade more than once?

(Several people should have made numerous trades.)

E. Why did you trade?

(People tend to give up items they personally value less to obtain items they value more.)

F. Why did people tend to trade away a large number of their favorite items?

(Too much of a good thing reduces the value of any single item. Your tenth Snickers bar is more easily given up than the only Snickers bar you possess. Remember the idea of marginality?)

G. Did people with few items always do poorly in the trading session?

(Yes, unless their item was a highly-valued one. For example, the student with quiz answers should have done well. Students with only two bags of wheat germ probably did poorly because they had little to trade and also because other students didn't value wheat germ highly.)

H. Did your trading behavior confirm or contradict the answers you gave to our opening question about why people trade?

I. What was the cost and what was the benefit of your trades?

(What was traded away was the cost of the trade. What was received was the benefit.)

J. Were all of you happy with your trades?

(Probably not. Students who had little to trade may not have been pleased. Students who had other items didn't want to feel left out. Studetns who couldn't find what they wanted may have been dissatisfied. Students who traded and then realized they missed a better trade may have been unhappy. Finally, students who either underestimated the costs of a trade or overestimated is benefits — or both — may have been unhappy. *Trading doesn't guarantee happiness.* Economists merely maintain that trade will continue if people feel they are better off after the trade than if they had not traded at all.)

K. If the trading session were to be conducted tomorrow, who would want to continue trading?

(People who believe the benefits would outweigh the costs would be in favor. People who believe the reverse would no longer be interested.)

L. In what respects did the trading session resemble trading in the "real world"?

(Compare this session with the gasoline station example and notice the many similarities. Some differences are obvious. No money was exchanged, and students didn't have to work — i.e., incur production costs — to get the items they traded.)

Closure

Share the following conclusion with the students: This activity serves as a personalized analogy for world trade. Remember the concepts of *cost benefit*, and *trade* as we study world trade issues. The ideas you learned today will help you to understand the trade that takes place world-wide.

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Unit 7
Lesson 3
Why People Trade: Comparative Advantage

Introduction

Economics *Comparative advantage* is a powerful principle that helps to explain why countries gain when they trade, even if one country is a lower-cost producer of all the goods or services traded than the other country. The law of comparative advantage states that the total output of a group of nations is greatest when each nation specializes in the production and export of those goods and services in which it has a comparative advantage, and imports goods and services from other nations in which its advantage is less. The concept of comparative advantage relates to the opportunity cost involved in producing more of one good or service and less of another.

Reasoning *The comparative advantage* principle is a subtle, difficult, and important extension of the opportunity cost principle. Link the idea closely to students' prior understanding of opportunity cost and have them practice this reasoning technique. Most individuals must practice such reasoning repeatedly before they can use it well.

Concepts

Trade
Comparative advantage
Opportunity cost
Incentives

Instructional Objectives

Students will

1. Explain how incentives influence trade.
2. Define and apply the concept of comparative advantage.
3. Explain why nations and people often choose to specialize in the production of certain goods and services and trade to obtain other goods and services.

Lesson Description

This lesson uses handouts to help students to decide why people buy foreign goods and to help students practice measuring the comparative advantage of different producers.

Time Required

Two class periods.

Adapted from *Teaching Strategies for International Trade*. National Council on Economic Education, 1988.

Materials

One copy for each student: Handout 7-3-1, 7-3-2, 7-3-3, and 7-3-4

Procedure

1. Tell the class the purpose of today's lesson is to introduce students to the idea of comparative advantage. Distribute Handout 7-3-1. Instruct students to read the handout to learn how people benefit from voluntary trade.
2. Discuss Handout 7-3-1 in class. Ask:
   A. Why do people trade?

      (Both parties gain.)

   B. Why does the U.S. import bananas?

      (U.S. farmers *could* grow bananas but it would be very expensive. They gain more by growing wheat and trading for bananas.)

   C. What is comparative advantage?

      (Having a relative cost advantage in producing one type of good or service when compared to another.)
3. Distribute Handout 7-3-2, "Why Do People Buy Foreign Goods?" Ask students to complete this worksheet as a homework assignment and then compare their behavior and that of the adults they interview with the major points about trade in Handout 7-3-1. What incentives influence each group's behavior?
4. Have students return Handout 7-3-2, "Why Do People Buy Foreign Goods?" Ask:
   A. What was the main criterion for their choice of which running shoes to buy?

      (Generally, it will be price.)

   B. Why is that important?

      (A lower price frees more money to buy additional goods and services.)

   C. Ask students what types of foreign-produced products the merchants they interviewed had available for sale.

      (Answers will vary.)

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D. What did the people interviewed indicate were the main criteria for why they buy foreign goods?

(This response may emphasize quality, because buyers have no control over the quality of goods.)

5. Distribute Handout 7-3-3. Have students read and work through the questions about the Hatfield-McCoy trading relationship.

6. Conduct a class discussion on the results of the worksheet problems. Ask:

A. Was Ma right? Should the Hatfields and the McCoys trade? Why?

(On the basis of comparative advantage, each family and the "total system" can gain wealth by specializing and trading. The Hatfields are better in the production of both cloth and corn, but they can still gain by trading with the less efficient McCoys and concentrating on what they do best, which is raising corn. This is important because it explains why it is to our advantage to continue to trade with less efficient nations and why it is to their advantage to continue to trade with the United States.)

B. Did anyone think that the two families should not trade? Why?

(The arithmetic should illustrate the advantages of specialization and trade. However, there may be students for whom the issues of dependency or quality would provide a basis for not trading. These are legitimate concerns and can be discussed in light of national security issues and personal consumer preferences.)

Closure

Have students read the *New York Times* interview with Alain Madelin, former French Minister for Industry, Handout 7-3-4. Ask them to explain why leaders in Europe want to create a complete common market by 1992 to replace the partial one that has developed since the middle 1950's.

Answers to "The Hatfields and McCoys," Handout 7-3-3:

Hatfields: before specialization
- 8 hours for 1 bushel of corn
- 10 hours for 1 yard of cloth
- 18 hours for *total* production of 1 bushel of corn and 1 yard of cloth

McCoys: before specialization
- 15 hours for 1 bushel of corn
- 12 hours for 1 yard of cloth
- 27 hours for *total* production of 1 bushel of corn and 1 yard of cloth

Hatfields: after specialization
- 16 hours for 2 bushels of corn

Total hours = 16 hours to have 1 bushel of corn and 1 yard of cloth through trade

McCoys: after specialization
- 24 hours for 2 yards of cloth

Total hours = 24 hours to have 1 yard of cloth and 1 bushel of corn through trade

Time gained
- 2 hours for the Hatfields
- 2 hours for the McCoys

Both families will gain by trading.

Reasons not to trade:
The families' dislike for one another may be so great that the extra time is not enough benefit to overcome the unpleasantness of the trade relationship.

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UNIT 7
Lesson 4
Trade Barriers

Introduction

Economics Comparative advantage leads economies to specialize in the production of goods or services in which they have a relative cost advantage, and to trade for goods and services that they can produce only at a relative cost disadvantage. The gains from such voluntary exchange expand the production and consumption possibilities of all trading participants. Trade barriers, such as quotas, tariffs, and subsidies, interfere with mutually beneficial exchanges, thereby reducing possible world trade and production.

Reasoning Trade barriers alter the behavior of producers and consumers by changing the incentives which influence their economic choices. In this lesson, students must accurately use supply and demand analysis to predict the consequences when trade barriers are changed.

Concepts

Trade barriers
Supply
Demand
Price
Surplus
Shortage

Instructional Objectives

Students will

1. Describe the various types of trade barriers and their effects on world trade.
2. Determine which groups gain and which groups lose from the imposition of trade barriers.
3. Debate whether trade barriers should be imposed on a particular product.

Lesson Description

This lesson describes several examples of trade barriers; requires students to practice supply and demand analysis to anticipate the consequences of trade barriers; allows students to conduct a debate over trade barriers.

Adapted from *Teaching Strategies for International Trade*. National Council on Economic Education, 1980.

Time Required

Two class periods

Materials

One copy for each student: Handouts 7-4-1, 7-4-2, 7-4-3, 7-4-4.
A transparency of Visual 7-4-1.

Procedure

1. Tell the class that in this lesson they will learn about various types of trade restrictions such as tariffs, quotas, and embargoes. Next they will prepare for a debate on trade restrictions.

2. Distribute Handout 7-4-1. Ask students to identify the five types of trade restrictions. When they have completed the reading, ask:

   A. If a country imposes a barrier against imports, what is likely to happen to the price and amount of imported goods?

   (Price rises and the quantity imported [demanded] falls.)

   B. If the price of the imported good rises when a barrier is erected, what is likely to happen to the output of domestic firms that produce goods which can be substituted for the imports?

   (The output of such firms will rise and their profits will increase.)

   C. Is anyone made worse off as a result of import barriers?

   (Foreign producers lose sales/profits, and domestic consumers pay higher prices for foreign goods. Also, domestic producers who produce goods that complement the imported goods will lose sales.)

   D. Who gains and who loses from subsidies to U.S. export industries?

   (Producers of exports gain; taxpayers who must provide the subsidy lose through payment of higher taxes.)

   E. What are some reasons for imposing trade barriers?

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(To protect specific domestic industries, to ensure diversity in national production, to reduce a nation's vulnerability to threats to its national security.)

3. Distribute Handout 7-4-2. Using Visual 7-4-1, demonstrate on the board or overhead projector the effects of a tariff on:

   A. The total supply curve of the imported good.

   B. The price of the good.

   C. The quantity demanded.

   D. The quantity of that good produced by domestic producers.

   E. The quantity of that good produced by foreign producers.

   (Answers to question A-E are provided in Handout 7-4-2.)

4. Have students complete the rest of the handout to determine the effects of quotas and export subsidies in the same manner as in the example. Have them return the handout for evaluation.

5. Divide the class into two groups. Distribute copies of "The Controversy Over Foreign Cotton, The Case for Protection" (Handout 7-4-3) to students in one group, and "The Controversy Over Foreign Cotton, The Case for Free Trade" (Handout 7-4-4) to students in the other. Students in each group should read their handout, answer the questions, and research their respective positions for debate the following day. In order to debate, students must have a proposition (e.g., "Legislation should be passed to protect American cotton growers from foreign competition"). If necessary, help the groups to formulate a proposition. Set rules for the debate as necessary.

6. Have each group select a spokesperson to present the debate. Other students may contribute when their spokesperson needs help.

Closure

Ask students to use the *Handy Dandy Guides* as they listen to the debate. From the arguments, have them write down examples that involve the six principles of economic reasoning.

Answers to Handout 7-4-2

Quotas

As in Exhibit 1, modify the "free trade" situation as shown to reflect the enactment of a subsidy to domestic producers. Indicate the effect on price, domestic production, and imports.

Import supply becomes vertical at 5 units. All increases in total quantity supplied as the price rises must therefore come from domestic production. The reduced total supply causes the price to rise; domestic production rises, and, of course, imports fall to 5 units.

Subsidies

As in Exhibit 1, modify the "free trade" situation as shown to reflect the enactment of a subsidy to domestic producers. Indicate the effect on price, domestic production, and imports.

The subsidy increases domestic supply, and therefore total supply. The lower price causes foreign producers to cut back production from 10 to 8 units.

Possible Answers for Handout 7-4-3

1. The growers' group probably will favor some type of import restriction — a tariff, quota, or subsidy that will lower their costs of production. Any of these measures will allow them to compete more successfully with lower-cost foreign producers.

2. Any policy chosen in accord with the suggestions above will likely raise the incomes of the growers' group.

3. Import restrictions will reduce total supply and raise cotton prices. Subsidies will do just the opposite, but everyone must then pay higher taxes.

4. Foreign cotton producers will be worse off in any case. They will have to pay a duty, or be subjected to a quota, or face some other obstacle which raises their costs or lowers their revenues.

5. A negotiated settlement with foreign producers, or with their suppliers of materials and labor, may also be acceptable if it appears that trade restrictions cannot win approval.

Possible Answers for Handout 7-4-4

1. The group representing textile mill operators will favor free trade in order to allow its members to continue obtaining cheaper imported cotton.

2. The free trade policy will result in lower cotton costs for the mills.

3. Any cost savings obtained by mill owners will be passed through to consumers as well. Domestic cotton producers will object, however.

4. Foreign cotton producers' incomes will be higher than they would be with trade restraints.

5. Some negotiated settlement may be acceptable if it appears that trade restrictions will be imposed.

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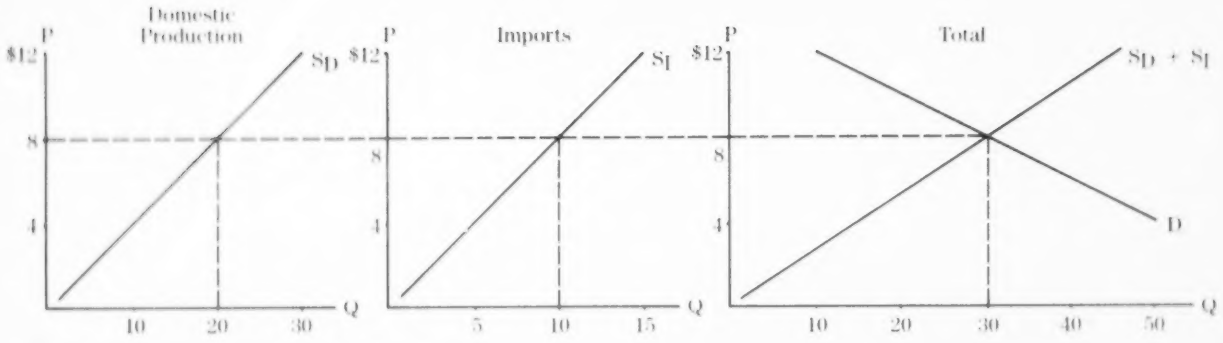
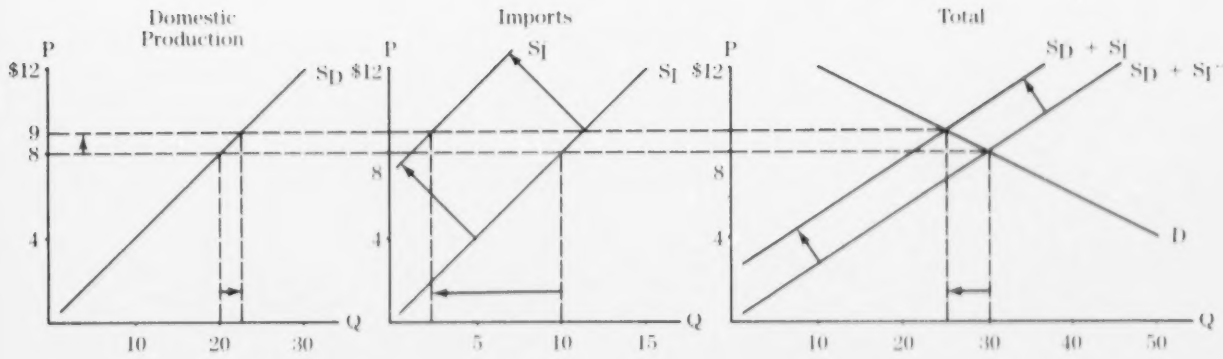
Visual 7-4-1
Domestic and Import Markets Without Tariffs



Domestic and Import Markets After Tariff



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Unit 7
Lesson 5
Balance of Payments

Introduction

Economics The balance of payments account is a periodic report that summarizes all economic transactions between one country and all other countries for a specific time period. All transactions are grouped into three basic categories: current account, capital account and official reserve account.

Reasoning How do we know whether the economy of one country is interacting in a healthy way with the rest of the world? Judgments about this question are often made on the basis of incomplete information. The incomplete information is usually about "deficits" or "surpluses" in a country's balance on merchandise trade. Lesson 5 teaches students to disregard distracting clues and to focus on more complete measures of international economic relationships.

Concepts

Balance of payments
Current account
Capital account
Currency flows
Deficit
Surplus

Instructional Objectives

Students will

1. Name the principal components of the balance of payments account.
2. Construct a balance of payments account for a hypothetical economy.
3. Explain what is meant by a "deficit" or "surplus" in a country's balance of payments accounts.

Lesson Description

Popular myths concerning the balance of payments accounts abound. Newspaper stories warn us of the perils of a "deficit" in the U.S. balance of payments accounts, while complaining of a "surplus" in the Japanese balance of payments accounts. Lesson 5 will introduce students to the balance of payments accounting system and help them draw accurate conclusions from the information such a system contains.

Time Required

Two class periods

Adapted from *Teaching Strategies for International Trade*. National Council on Economic Education, 1988.

Materials

One copy for each student: Handouts 7-5-1, 7-5-2, and 7-5-3.

Procedure

1. Introduce the lesson by giving a short presentation telling students that it is easy to get mixed up trying to evaluate information about foreign trade. Learning a few basic principles will help, however.

2. Distribute copies of Handout 7-5-1. Have students read the first part of the conversation and the accompanying explanation; then have them complete the hypothetical balance of payments accounts in Handout 7-5-2 as per the instructions in Handout 7-5-1. They then should complete reading Handout 7-5-1. Go over these exercises to be sure the students understand the difference between transactions that give rise to an inflow of payments between one country and the rest of the world (credits) and those transactions that give rise to an outflow of such payments (debits).

3. Have students go through the "U.S. Balance of Payments in 1985" accounts in Handout 7-5-3 and answer the questions at the end.

4. When the students have completed the questions, discuss related questions such as:

   A. Why do some people object to a current account deficit?

      (A current account deficit involves more imports than exports. When imports are high, some people in domestic industries that compete with these imports may lose their jobs or believe that their jobs are in jeopardy.)

   B. What actions will tend to offset a deficit on current account?

      (Borrowing by U.S. banks or by the government, or investment by people, businesses, or other governments.)

   C. Would a U.S. foreign-aid grant to Zimbabwe be recorded as a credit or a debit?

      (This transaction would result in an outflow of payments from the United States and would therefore be recorded as a debit.)

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Closure

Tell the students to interview one adult (a parent, a neighbor, a teacher) regarding the balance of payments. They should ask the adult to explain what the balance of payments is and when a deficit or surplus can occur. When the interviews are completed, help students summarize them in class, highlighting the misunderstandings they reveal about the balance of payments.

Answers to Handout 7-5-2

	United States		Germany	
	Debit	**Credit**	**Debit**	**Credit**
U.S. sells $1 million of steel to German builder		$1 m	$1 m	
Bank of America pays $5 million in interest to German depositors	5 m			5 m
U.S. citizens spend $3 million on German Mercedes automobiles	3 m			3 m
A U.S. firm receives a $2 million dividend on its investments in Germany.		2 m	2 m	
German tourists spend $3 million in U.S., while American tourists spend $5 million in Germany.	5 m	3 m	3 m	5 m
A German firm pays $1 million to a U.S. shipping line for transporting a load of cars		1 m	1 m	
U.S. exchange students spend $8 million for tuition at the University in Bonn, Germany	8 m			8 m
The German government buys a $10 million missile from the U.S. Army to shore up its defenses		10 m	10 m	
TOTAL	$21 m	$17 m	$17 m	$21 m

Answers to Handout 7-5-3

1. A deficit: the total of imports of goods and services exceeds the total of exports of goods and service.
2. A net borrower: the balance of capital account is positive, showing the U.S. is a net exporter of IOUs.
3. Yes. Unless mistakes are made, voluntary exchanges are beneficial to both parties. The U.S. importers voluntarily purchased their goods and services abroad and the borrowers voluntarily exchanged IOUs for foreign currency.
4. The $117,676 million deficit on current account is offset by the $94,670 million surplus on capital account, plus the $23,006 million statistical discrepancy. Put differently: the $117,676 million deficit is balanced by the sum of +$94,670 million and +$23,006 million = +$117,676 million.

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Unit 7
Lesson 6
Ripples

Introduction

Economics Import and export restrictions influence the price of goods and services produced in an economy. In particular, such restrictions alter the determinants of supply and demand and thereby create changes in market conditions.

Reasoning Any major change in an economic system has far-reaching effects throughout the system. Lesson 6 provides an opportunity for students to use economic reasoning to assess the impact of trade restraints on prices and employment in different sectors of the economy.

Concepts

Trade barriers
Supply
Demand

Instructional Objectives

Students will

1. Predict changes in prices resulting from trade restrictions.
2. Predict changes in employment resulting from trade restrictions.
3. Develop economic forecasts.

Lesson Description

During this lesson, students work in small groups to predict the consequences of restrictive trade policies on two industries by using their previously acquired skills in economic reasoning techniques. The lesson assumes that students have the ability to use supply and demand analysis accurately.

Time Required One class period

Materials

Butcher paper and felt pens for each group.
One copy for each student: Handouts 7-6-1 and 7-6-2.

Procedure

1. Divide the class into four or six teams. Tell the class that they will carry out an activity allowing them to assess the effects of trade restrictions on market conditions.
2. Distribute copies of Handout 7-6-1 and a corresponding sheet of butcher paper to half of the teams; distribute copies of Handout 7-6-2 and a corresponding sheet of butcher paper to the other teams.
3. Half of the teams will list the consequences of eliminating all imports of automobiles, while the other teams will list the consequences of eliminating all exports of domestically-produced aircraft.
4. Appoint one member of each group to record the group's responses on the butcher paper. All teams should list the possible consequences for price and employment, along with a brief explanation of how they arrived at their answers. A sample response is provided at the top of the handouts.
5. Groups should work for 20 to 25 minutes. When their lists are completed, reassemble the class. The recorders should put each list in front of the class.

Closure

Ask the following review questions:

A. Look over the work done by groups with the same task as yours. Did the other groups agree with you?

B. What are the major differences between the lists made by the different groups?

C. Did all groups use the demand and supply analysis accurately to predict price changes?

D. If these changes in world trade took place, what impact would they have on your family?

E. Would everyone be affected in the same way by these changes? If not, note some of the differences and tell how the varying effects might affect attitudes toward world trade.

F. What new economic and social problems are created by these trade embargo policies?

G. Will these trade embargo policies encourage or discourage smuggling of automobiles?

H. Why will the embargo be more successful in preventing the trade of some items than others?

(Some items, like drugs, are easier to move and hide than others, like cars. Smuggling of drugs is more likely to take place than automobile smuggling.)

Adapted from *Teaching Strategies for International Trade*, National Council on Economic Education, 1988.

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Answers to Handout 7-6-1

People Affected	Prices	Impact on: Employment	Explanation
1. Firms competitive with auto imports			
ex. a. Domestic auto producers	↑	↑	Demand increases
b. Taxi, trains, and other means of transportation	↑	↑	Demand increases
c.			
d.			
2. Firms that are complementary with auto imports			
ex. a. Import auto dealers	↓	↓	Demand decreases
b. Gas stations, import repair shops	↓	↓	Demand decreases
c.			
d.			
3. Secondary markets			
ex. a. Domestic steel producers	↑	↓	Demand increaes
b. All input suppliers	↑	↓	Demand increases
c. All suppliers to *these* suppliers	↑	↓	Higher input prices
d. Other firms using these inputs	↑	↓	cause supply to fall
4. Other groups			
ex. a. Auto buyers	↑	→	Demand increases
b. Auto workers	↑	↑	Demand increases
c.			
d.			

Answers to Handout 7-6-2

People Affected	Prices	Impact on: Employment	Explanation
1. Firms competitive with aircraft exports			
ex. a. European aircraft manufacturers	↑	↑	Demand increases
b. Domestic bus and train makers producing for export.	↑	↑	Demand increases
c.			
d.			
2. Firms that are complementary with aircraft exports			
ex. a. Export bankers	↓	↓	Demand decreases
b. Parts suppliers	↓	↓	Demand decreases
c. Fuel suppliers	↓	↓	Demand decreases
d.			
3. Secondary markets			
ex. a. Aluminum producers	↓	↓	Demand decreases
b. All other parts suppliers	↓	↓	Demand decreases
c. Suppliers to *these* suppliers	↓	↓	Demand decreases
d. Other firms using these inputs	↓	↑	Lower input prices cause supply to rise
4. Other groups			
ex. a. Aircraft workers	↓	↓	Demand decreases
b. Buyers of used aircraft	↓	→	Demand decreases
c.			
d.			

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Unit 7
Lesson 7
Foreign Currencies and Foreign Exchange

Introduction

Economics Money has several functions in an economy: it serves as a medium of exchange, a store of value, and a measure of value. In world trade, money also functions as a medium of exchange used to carry out payments on international transactions. The value of a currency, when used for international exchanges, is frequently set in foreign exchange markets in which the forces of supply and demand establish a price at which different currencies exchange. Foreign exchange rates set in such a free market are generally called floating rates — or sometimes freely flexible rates. When currency values are not set — or not completely set — in foreign exchange markets, they are set at fixed rates or between fixed limits by governments.

Reasoning Decisions to buy or sell foreign currency are influenced by the same economic principles that affect all economic choices. In this lesson, students will apply their reasoning skills to explain changes in the exchange rate between two currencies.

Concepts

Exchange rate
Money
Markets
Supply
Demand

Instructional Objectives

Students will

1. Explain why citizens or businesses of one country might require the currency of another country.
2. Explain how foreign exchange values are influenced by supply and demand.
3. Explain how an increase (or decrease) in the availability of a currency may cause a decline (or rise) in that currency's foreign exchange value.

Lesson Description

Students participate in a simulated foreign exchange market. The exercise provides an opportunity for students to use supply and demand analysis to explain how flexible exchange rates are established in currency markets.

"The Foreign Currency and Exchange Game" is reproduced in lesson 7 with minor editorial changes from *Trees and TV's in the International Marketplace*, by permission, Office of the Superintendent of Public Instruction, State of Washington, Olympia, Washington 98504. The unit was developed by the Washington Council for Economic Education.

Time Required

One class period

Materials

One copy for each student: Handouts 7-7-1 and 7-7-2.

Mints, M&Ms, similar small candies, or other equally divisible goods such as unshelled almonds or peanuts. (A one-pound bag should be enough for three classes of 35 students.)

Enough duplicates of Peseta Notes to equal one sheet of peseta notes per student plus a few extra sheets.

Exactly 25 fake American dollars.

Procedure

1. Give each student a copy of Handout 7-7-1, and announce, "Today we will look at money and the process by which it is exchanged and valued by people in two or more countries." Have the students read Handout 7-7-1.
2. Announce that you are setting up a foreign currency market in order to play "The Foreign Currency and Exchange Game." As you show the students the dollar replicas, tell them you will sell one candy mint for one American dollar.
3. Tell the students they will act as citizens of Spain. Distribute four or five Spanish peseta notes to all students. Give them the different amounts in random fashion.
4. Announce that the only way they can buy candy is with one of the American dollars you hold. Also announce that you can sell only five pieces of candy during one session of the currency market. Students will therefore be required to trade their pesetas for your dollars before they can buy any of the five candies.
5. Appoint a student to serve as the banker. Pay the banker one piece of candy for the work done during each round. Give the banker the rest of the pesetas and five dollars. Set up the bank at the front of the room.

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6. Appoint another student as tally keeper. You will also pay this student one piece of candy per round. Copy the first two columns of the tally table (see below) on the chalkboard. (In order that students not know in advance how many rounds will be played, do not add the columns for Rounds 2 and 3 to the tally table until you are ready to begin those rounds. Leave room at the top of the table to write in larger amounts of pesetas.) The tally keeper will make a mark in the appropriate space for each price at which you sell an American dollar in each round.

Tally Table

Price (in pesetas)	Round 1	Round 2	Round 3
220			
210			
200			
190			
180			
170			
160			
150			
140			
130			
120			
110			
100			
90			
80			
70			

7. *Round 1:* Announce that the bidding for American dollars will begin. The only acceptable payment is Spanish pesetas. To simplify the chart, the minimum price will be 50 pesetas. Let students bid. Decide at what prices you will sell the dollars. At first, you will get low bids. Accept a few. Then the bids should start to increase. As each bid is accepted, the bidder should go to the bank and exchange the Spanish money for an American dollar. The tally keeper should make a mark on the chart at the appropriate price, in pesetas, as each bid is accepted. Continue until the banker announces that you have sold the five American dollars available for this round. Stop the bidding. Allow the owners of American dollars to come to you and exchange the dollars for the candy.

8. *Round 2:* Increase the supply of Spanish pesetas by distributing another four or five peseta notes to each student. Announce the beginning of Round 2. Have available another set of five American dollars and five pieces of candy. The banker and the tally keeper will perform the same jobs as in the previous round. Repeat the bidding process. When the five American dollars are sold, stop the bidding and allow the owners of the dollars to get their candy.

9. *Round 3:* Increase the supply of Spanish pesetas by distributing another four or five peseta notes to each student. Announce the beginning of Round 3. Have available another set of five American dollars and five pieces of candy. The banker and the tally keeper will perform the same jobs as in the previous round. Repeat the bidding process. When the five American dollars are sold, stop the bidding and allow the owners of the dollars to get their candy.

10. Ask the following questions to review the activity:

    A. How many total pesetas were paid for the five American dollars in Round 1? In Round 2? In Round 3? In other words, what was the price of five dollars in terms of pesetas in each round?

    B. How wide were the price variations of pesetas per dollar in each round?

    C. Did the successive rounds establish a price pattern?

    D. What determined the exchange rate of pesetas and dollars for each other?

    (You should steer students toward a supply and demand explanation if it does not occur naturally.)

    E. How does the pattern of exchange rates illustrate the concept of supply and demand?

    (The exchange rate for dollars in terms of pesetas rose when the increased supply of pesetas brought a higher peseta price for each dollar demanded.)

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F. In general, how is the foreign exchange value of a currency set in terms of other currencies?

(By supply and demand.)

G. What factors might cause the exchange rate between two countries to change?

(Changes in the supply of, or the demand for, the currencies.)

Closure

Distribute Handout 7-7-2. After the students complete the handout, assess their answers.

Answers for Handout 7-7-2

1. Medium of exchange, store of value, measure of value.
2. Supply and demand.
3. Depreciates. Appreciates.
4. Foreign exchange markets.
5. It would increase.
6. It would decrease.

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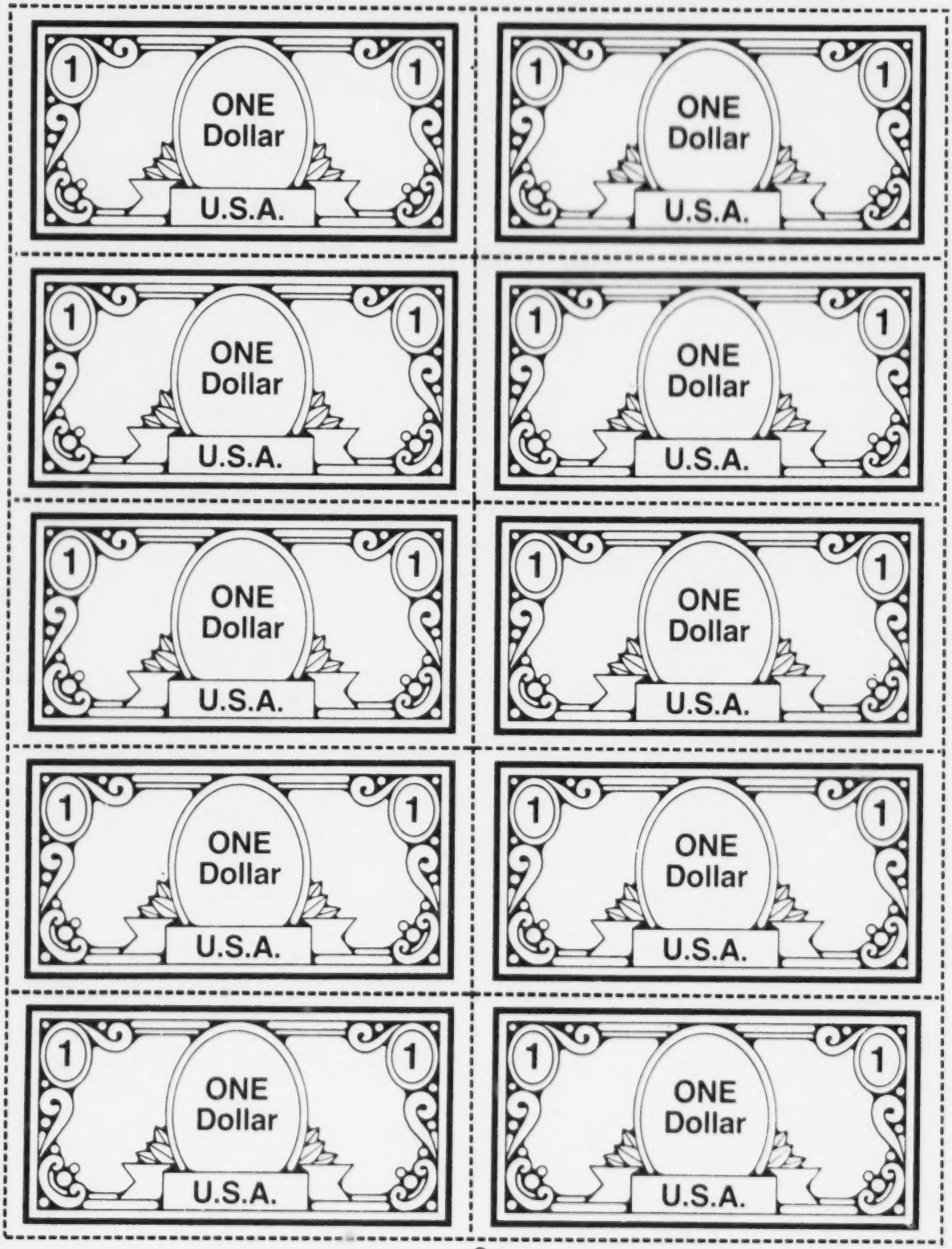
AMERICAN DOLLARS (You will need 25 American dollars)



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PESETA NOTES (approximately one per student)

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Unit 7
Lesson 8
Exchange Rates

Introduction

Economics A direct relationship exists between trade behavior and exchange rates. When the demand for a country's exports increases, there will be a stronger demand for its currency as well. If the value of the currency increases, that increase will influence the number of exports sold. If prices rise because the currency value increases, the number of exports sold will decline.

Reasoning In this lesson students follow the complex links between a currency's foreign exchange value, a country's trade volume, and the prices of imports and exports. While these interrelationships are complex, the basic economic principles contained in the *Handy Dandy Guide* help keep the relationships clear and understandable.

Concepts

Exchange rates
Balance of trade
Supply
Demand

Instructional Objectives

Students will

1. Explain how changes in exchange rates affect the cost of a country's imports.
2. Explain how changes in exchange rates affect the cost of a country's exports.
3. Explain how changes in exchange rates influence individual economizing choices.

Lesson Description

This lesson requires students to analyze the economizing decisions of exporters and importers, to calculate price changes which result from changes in currency exchange rates, and to conclude how a country's balance of trade is influenced by changes in that country's exchange rate.

Time Required

One class period

Materials

One copy for each student: Handouts 7-8-1 and 7-8-2.

Adapted from *Teaching About the Japanese Economy*. National Council on Economic Education, 1986.

Procedure

1. Divide the class in half. Designate one group as importers, the other as exporters.
2. Distribute copies of Handout 7-8-1 to the importers and 7-8-2 to the exporters.
3. Have students read the instructions on the handouts and individually complete the table contained in each handout. After they finish, have the group cooperate in answering the remaining questions.
4. When they have completed the handouts, lead a discussion around the following questions.

   A. Who benefits from a strong dollar?

   (Consumers, importers, workers in import-related industries such as U.S. Honda dealers, etc.)

   B. Who benefits from a weak dollar?

   (Exporters, workers in export-related industries.)

   C. How is the balance of trade affected by the exchange rate of the dollar?

   (Imports will usually be higher and exports lower when the dollar is strong. This may lead to a balance of trade deficit. The opposite occurs when the dollar is weak.)

   D. Why might governments intervene in foreign exchange markets to influence the exchange rate of their currencies?

   (Large balance of trade deficits often cause exporters to lobby their governments to lower the exchange rate of the nation's currency. A lower exchange rate makes the exporters' products cheaper for people in foreign nations to buy. Large balance of trade deficits often cause importers to lobby their governments to raise the exchange rate of the nation's currency. Lower exchange rates make their imports cheaper for people in the importing nation to buy.)

   E. Does an economic perspective help explain why importers prefer a "strong" currency and exporters prefer a "weak" currency?

   (Yes, a strong currency reduces importers' costs and increases their sales if they pass on the

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savings to consumers. A strong currency increases importers' profits per unit sold if they do not pass on their savings. A weak currency increases the opportunity for exporters to gain sales because their goods become cheaper in terms of foreign currencies. If exporters raise their prices per unit sold, they will increase their profits.)

Closure

Ask the students to suppose a developing economy borrowed $500 million from U.S. banks 10 years ago to build up its economy. Would it prefer to have the U.S. dollar become stronger in the meantime? Weaker? Why?

(Weaker — less of its currency would be required to purchase the dollars needed to pay off its debt.)

Answers to Handout 7-8-1

Product	Price in foreign currency	Price in dollars: Case 1	Case 2	Case 3
Video cassette recorder	60,000 Y	$300	$400	$200
Wool coat	40 $	$ 59.70	$ 80	$ 40
Cuckoo clock	200 DM	$100	$133.33	$ 66.67

1. Case #3 costs are lowest; Case #2 costs are highest.

2. Case #3.

3. A strong dollar.

4. Case #3.

Anwers to Handout 7-8-2

Product	Price in dollars	Price in foreign currency Case 1	Case 2	Case 3
Bushel of wheat	$ 3.00	600 Y 2 $ 6 DM	450 Y 1.5 $ 4.5 DM	900 Y 3 $ 9 DM
Ton of coal	$60.00	12,000 Y 40 $ 120 DM	9,000 Y 30 $ 90 DM	18,000 Y 60 $ 180 DM
Micro-chip Processor	$12.00	2,400 Y 8 $ 24 DM	1,800 Y 6 $ 18 DM	3,600 Y 12 $ 36 DM

1. Case #2 is the lowest cost; Case #3 is the highest cost.

2. Case #2.

3. Weak dollar.

4. Case #2.

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Unit 7
Lesson 9
Disagreements Over World Trade

Introduction

Economics Economic theory suggests that free trade among nations leads to greater production, more employment, more efficient use of resources, and lower prices. It also suggests that individuals make purposeful decisions through which they attempt to maximize their personal net benfits.

Reasoning The process of economizing is an attempt to improve one's personal well being. Ironically, such behavior may contribute to policies that reduce the economic efficiency of the global economy. Lesson 9 explains this circumstance. It will help students to understand why people may favor free trade in principle, but in practice oppose specific actions that depend on or foster free trade.

Concepts

Economize
Cost
Benefit

Instructional Objectives

Students will

1. Determine factors that govern a person's interests, and explain how these interests can influence that individual's attitude toward world trade.
2. Use economic reasoning to explain individual economizing decisions.
3. Explain why different individuals disagree on policies with respect to world trade.

Lesson Description

Students, after receiving background information, will predict how different individuals will respond to a specific proposal to limit international trade. These predictions should be based on the students' use of economic reasoning.

Important Note to the Teacher

In general, economists agree that free trade is important for a nation because it leads to greater production, more employment, efficient use of resources, and lower prices; yet many people disagree with a policy of free trade. Why do rational, thoughtful, knowledgeable people disagree over such an important issue? This lesson helps students use basic principles of economics to explain why people might not agree with a free trade policy. Remember, individuals make purposeful choices, and those choices are influenced by their own interests and values. People tend to favor free trade policies when it helps them to meet their personal goals and tend to oppose free trade when it interferes with reaching their goals or increases the cost of obtaining them. This analysis also helps explain why people can be in favor of free trade in general and opposed to specific free trade activities.

Time Required

One class period.

Materials

One copy for each student: Handouts 7-9-1, 7-9-2, and 7-9-3.

Procedure

1. Distribute Handout 7-9-1. Ask the students to read it. Then discuss the factors that influence how people make decisions on policies about free trade.
2. Distribute Handout 7-9-2. Ask the students to read it. Tell them to keep in mind that they will be asked to analyze the different opinions people have about a proposed foreign-trade law.
3. Divide the class into eight groups. Tell one group it will analyze the comments of Theodore Gladhand, another the comments of Alice Fisher, another the comments of Johnny Appleseed, another the comments of Fred Flintstone, another the comments of Tawnya Raye, another the comments of Dave Jensen, another the comments of Janet Milton, and another the comments of Rich Hartley.
4. Then allow the groups about 15 minutes to analyze the comments on Handout 7-9-2. Give each group a copy of Handout 7-9-3 to look through to see what answers they need to provide from their analyses of Handout 7-9-2. Appoint a recorder for each group, or have each group choose a recorder to enter the group's conclusions on the handout.

Closure

Reassemble the class. Solicit the analysis of each small group by requiring each group recorder to write that group's conclusions on the chalkboard. As a class, evaluate the conclusions of each group. Ask students what effect opinions such as those expressed in Handout 7-9-2 are likely to have on world trade. (After this lesson, students should observe that such opinions make it likely that restrictions will be imposed on world trade.)

Adapted from *Teaching Strategies for International Trade*, National Council on Economic Education, 1988.

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Sample Answers for Handout 7-9-3

Johnny Appleseed

Major point: Exports are a key factor in the economy. More attention should be given to helping exports.

Anticipated costs: The automobile and camera ban would not change his costs of production or lifestyle in any noticeable manner.

Anticipated benefits: A ban on imported cameras and automobiles would not benefit him in any noticeable manner.

Values priority: To increase employment by increasing exports is his first priority. Domestic employment in specific industries such as the automobile and camera industries is a lower priority.

Economizing decision: He would support the new law if it contained a provision for aid to exporters. Otherwise, he would be indifferent or opposed to the law. This bill as proposed is not a major free trade issue to him.

Alice Fisher

Major point: Foreign competition in the salmon-fishing industry is destroying a way of life. Something should be done to help people stay in the salmon-fishing business.

Anticipated costs: She would not incur any major costs if the bill were passed.

Anticipated benefits: She would not gain any noticeable benefits if the bill were passed.

Values priority: Laws that would help maintain the profitability of the U.S. salmon fishing industry and would help salmon-fishers to maintain their traditional style of life are her first priority. Economic expansion and foreign imports are less important to her.

Economizing decision: She is probably indifferent to the bill restricting automobile and camera imports. She would favor the bill if it also helped improve the condition of the salmon-fishing industry. The law as proposed is not a major free trade issue to her.

Fred Flintstone

Major point: A law prohibiting the sale of foreign cameras would destroy his business and the business of a friend who sells imported cars. Jobs in the import business are as important as any other jobs.

Anticipated costs: He would incur severe personal costs since this bill would "destroy his business."

Anticipated benefits: He would receive no personal benefits from this new bill.

Values priority: He wants to continue his present successful business which is dependent on foreign products. A less important priority is to help increase domestic employment as long as it doesn't threaten his livelihood.

Economizing decision: He will strongly oppose this proposed law and work hard to get his political representative to oppose it. It is a major trade issue to him.

Rich Hartley

Major point: Ports and longshore workers depend upon high levels of foreign trade activity. This bill could reduce the amount of longshore and other port-related work.

Anticipated costs: Less shipping in coastal ports and fewer jobs for longshore workers.

Anticipated benefits: Increased employment among workers in the camera and automobile industries.

Values priority: Maintaining employment levels in the shipping industry and coastal ports is the highest priority. To help increase employment in the camera and automobile industry is an important but secondary priority.

Economizing decision: He probably will oppose the bill even though he would like to increase job opportunities for people in other industries. If he could be guaranteed the new law would not harm job opportunities for longshore workers, then he would support it. This law as proposed is not a major free trade issue to him.

Tawnya Raye

Major point: People have greater opportunities to start a successful manufacturing business if they can buy inexpensive components from foreign producers and sell the assembled products to U.S. consumers.

Anticipated costs: The auto and camera bill may not directly hurt her business, but she is afraid the same argument could be used to stop foreign suppliers from providing the basic components she needs.

Anticipated benefits: She anticipated no direct benefits.

Values priority: It is more important to help beginning business enterprises than to protect workers in industries with heavy foreign competition.

Economizing decision: She will strongly oppose this bill and work hard to get her political representatives to vote against it. She would view this bill as an important free trade issue.

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Dave Jensen

Major point: He favors free trade only when companies compete under the same rules and privileges. If foreign companies are subsidized by their governments, they should not be allowed to sell their products in the United States.

Anticipated costs: His company is unable to compete with foreign companies. He may lose his business unless a bill is passed reducing this competition.

Anticipated benefits: He would expect greater sales, more revenue, and higher profits if the law is passed.

Values priority: Competition is encouraged only if all companies — here and abroad — compete under the same rules. In a case where competition is not "fair," U.S. companies should be protected.

Economizing decision: He will favor the new bill and encourage his political representative to vote for it. He would view this law as an important free trade issue.

Janet Milton:

Major point: Foreign competition helps consumers by providing a greater variety of products. The lower prices allow consumers to use their income to buy a greater variety of products and to increase their contributions to such things as worthy charitable causes.

Anticipated costs: Less foreign competition will increase product prices and reduce the number of goods, services, and charities she can purchase or support with her income.

Anticipated benefits: She expects no benefits from the proposed law.

Values priority: Lower prices for consumers plus increasing the number of jobs in other industries and charitable contributions are most important. Helping workers in the automobile and camera industries to retain their jobs is less important.

Economizing decision: She will strongly oppose this bill and encourage her political representative to vote against it. She would view this bill as an important free trade issue.

Theodore Gladhand:

Major point: He will do what people think is in the best interest of the community he represents.

Anticipated costs: He may lose the support of many of his constituents if he votes in favor of the bill.

Anticipated benefits: Other members of Congress may help him on other bills favoring his community if he votes for this bill. Also he may contribute to a more independent economy by favoring this bill.

Values priority: He wants to represent the wishes of his constituents. This is his most important priority. He must satisfy enough voters to be re-elected at a later date. He also values the good opinion and cooperation of fellow members of Congress. Finally he wants to help the country have a strong defense in case of war.

Economizing decision: He will probably vote for the bill if the other members of Congress can assure him that other laws which his community is most interested in will be passed. Otherwise he will probably vote against this bill. He does not see this law as a major free trade issue.

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Sample Test Items

Unit 7 International Economic Issues

1. Using economic reasoning principles, state why individual citizens might oppose trade with other countries that would produce lower prices for U.S. consumers.

   A. They believe low prices reduce consumer purchasing power.

   B. They object to the jobs gained by people who help import the consumers' products.

   C. They prefer not to gain economic benefits.

   *D. They fear that trade might worsen their personal economic situations.

2. Which of the following economic concepts is necessary to understand the law of comparative advantage?

   *A. Opportunity cost

   B. Demand

   C. Market clearing price

   D. Balance of payments

3. According to the law of comparative advantage, a nation can gain from international trade if it:

   A. Dumps its excess production on a competitor nation's markets.

   B. Develops a balance of payment surplus.

   *C. Produces and sells the products it can make at its lowest opportunity cost.

   D. Trades products for gold reserves.

4. Which of the following events would contribute to a "weaker" U.S. dollar on foreign exchange markets?

   *A. U.S. citizens buying more imports.

   B. Foreign citizens buying U.S. dollars.

   C. U.S. citizens buying fewer imports.

   D. U.S. citizens selling products to foreign citizens.

5. An increase in the tariff on foreign-produced automobiles would probably not benefit which of the following groups:

   A. Domestic automobile producers.

   *B. Buyers of domestic automobiles.

   C. Workers in the domestic automobile industry.

   D. Steel producers who sell steel to domestic automobile producers.

6. What will happen to the price of ballpoint pens if a large number of foreign producers began to sell ballpoint pens in the U.S.?

   A. The demand for pens would decline.

   *B. The price of pens would decline.

   C. The price of pens would increase.

   D. No change would occur in the price of pens.

7. A tariff is a:

   *A. Tax on imports.

   B. Tax on exports.

   C. Legal limit on imports.

   D. Legal limit on exports.

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8. The economic impact of tariffs is:

   A. An improvement in economic efficiency.

   B. A reduction in domestic prices.

   C. An increase in national employment.

   *D. A reduction in voluntary exchange.

9. Which of the following individuals would benefit if the U.S. dollar becomes stronger vs. the Japanese yen?

   A. A U.S. consumer purchasing a Japanese product.

   B. A U.S. producer buying a building in Tokyo.

   C. A U.S. tourist taking a two-week trip to Japan.

   *D. All of the above people would benefit.

10. If the exchange rate between the U.S. dollar and the German mark were .50 (50 cents = one mark), what would be the price in dollars of a German Automobile that costs 20,000 marks?

    A. $2,000

    B. $5,000

    *C. $10,000

    D. $50,000

Sample Essay Questions: Conversations About Economics

The following are essay questions designed for Unit 7. Students should be asked to read the items and evaluate the arguments of each speaker. In evaluating the arguments, they should answer the following questions:

— Is the speaker using economic or non-economic reasoning? How?

— Do you agree or disagree with the argument?

I. Free Trade or Protectionism?
Bob Milam In the 1950s, U.S. automobile manufacturers wanted free trade. Now they want import quotas on foreign cars. What gives?

Sara Kahn At least U.S. farmers have always favored free trade. They realize that free trade improves everybody's welfare. They've acted in a responsible manner to improve the common good.

Shawn Donaldson That's more than you can say for Japanese farmers. They've always lobbied their government to restrict food imports. They don't seem to realize that free trade improves everybody's well-being.

II. The Price of Money
Josh Boone An increase in the demand for dollars by foreigners will cause the dollar to depreciate against other currencies.

Dennis Wright I hope you don't become an international banker! The situation that you described will cause the dollar to appreciate, not depreciate.

Mike Durkin I don't know which one of you is right, but I do know that if foreigners demand more U.S. dollars, our exports should increase and our imports decrease.

III. North of the Border
Geoffrey Bliss We Canadians have made an historic decision. Free trade lost in 1891 and 1911, but it won in 1988. During the next 10 years, the U.S. and Canada will phase out all remaining tariffs and most other barriers to trade between the two nations.

Courtney O'Hare And a lot of good it will do us! Pretty soon we Canadians will be just like Americans. Our culture will be swallowed up by the American culture. Canada is like a mouse sleeping with an elephant.

Frank DuBois The tipoff on how good this trade agreement is for Canada is in how quickly the U.S. Congress approved it. It sailed through Congress in one day. If the trade agreement is so good for the U.S., how could it be good for Canada?

Sue Luque Free trade benefits everyone. Canadian businesses now have access to the entire U.S. market. We can specialize in what we do best. I'm going to expand my seafood processing plant now that U.S. tariffs on Canadian seafood will be dropped. And I look forward to drinking cheaper California wine.

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Unit 7
Answers for Teachers and Discussion Points on Sample Essay Questions

I. Free Trade or Protectionism?

This case study illustrates that although the benefits of free trade for an economy are well known, many people are concerned only with how free trade affects them personally. Therefore, economists' advice on the benefits of free trade is often ignored. Instead, politicians listen to special interests. U.S. auto companies do not want to compete against Japanese auto companies. Japanese farmers do not want to compete against U.S. farmers. Of course, American farmers favor free trade because it helps them. Consumers should favor free trade. However, because their interest is diffused, they do not make an effort to influence government.

II. The Price of Money

Dennis Wright is right. An increase in the demand for dollars will cause the value of the dollar to appreciate (increase) against other currencies. Mike Durkin has the effect on trade backwards. A strong dollar will increase imports and decrease exports. Because foreigners must spend more currency to buy dollars, U.S. exports will be more expensive in other countries.

III. North of the Border

Almost all economists cheer the 1988 U.S.-Canadian trade accord. Sue Luque expresses the view of economists that free trade improves everyone's standard of living. Because voluntary trade creates wealth, it makes sense that both the U.S. Congress and the Canadian Parliament approved the accord. Nothing in the agreement mandates that Canada change its culture. The agreement will create employment in industries where Canada has a comparative advantage and destroy jobs in industries where the U.S. has a comparative advantage. The U.S. and Canadian governments must help workers who are adversely affected by the trade pact. The treaty will improve the productivity of both the U.S. and the Canadian economies.

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Extending Teaching Activities

Economics USA

Return to Mocha

Economics and the Stock Market Game

Economics USA
Extension Lessons for all *Capstone* Units

Introduction

The Economics USA material represents a complete course in economic principles. Each tape can be used either to introduce or to summarize a key economic principle. Because the content linkage is so evident between the *Capstone* outline and the film series, we recommend that *Economics USA* be used as a visual supplement throughout the program.

Economics The subject of economics evolves from the condition of limited resources and unlimited wants. Because people can not have everything they want, they must make choices. To assist individuals and groups in making choices, economics provides a procedure for choice and a set of principles and theories that help people understand the decisions of others in a marketplace setting.

In weighing the costs and benefits of alternatives, people come closer to maximizing their level of satisfaction. It would be economically inefficient to select an option that provides low levels of satisfaction when one exists that supplies more. Through a better understanding of the market, marginalism, opportunity cost, and the forces of supply and demand, better choices are made.

Reasoning Because of scarcity we must choose. Choice making is a daily activity that engages everyone. Reasoning through the many alternatives our complex economic system provides is difficult at best. The difficulty is magnified when varying and changing personal values are considered. The economic way of thinking helps people to make choices, to understand the choices of others, and to predict choices.

Economic reasoning relates equally well to policy decisions. Government initiated policies have predictable consequences which may be disclosed by applications of economic reasoning.

Concepts

All economic concepts included in *Capstone* are presented in the *Economics USA* visuals.

Instructional Objectives

All the objectives included in *Capstone* can be introduced or summarized by using *Economics USA* visuals.

Lesson Description

The *Economics USA* film series and accompanying support material provides students with a visual presentation of economic concepts, principles and theories within a real world context. Each film contains a presentation of economic content and a real world case study with an historical and a present-day perspective. Numerous support activities to the films are included in the RESOURCE GUIDE FOR TEACHERS (JCEE Catalog #385).

Time Required One period per film, including follow-up discussion.

Materials

Economics USA film series
Economics USA: A Resource Guide for Teachers (JCEE #385)
Economics USA users' grid for *Capstone*

Procedure

Introduction:

To enhance the economic concepts, principles and theories presented in the seven units of the *Capstone* material, show the appropriate *Economics USA* film to the class. Use the introductory statements found in the resource guide to introduce the films. Depending upon the needs of the students and the time available, follow the debriefing activities also found in the guide.

NOTE: A common problem for teachers is how to contend with absences. The *Economics USA* material can provide students who have missed a class with a highly effective way of catching up.

The *Economics USA* users' grid for *Capstone* identifies where the films and resource guide lessons fit into the *Capstone* material. Follow the grid for all of the *Capstone* units. A more detailed description of how to use the *Economics USA* material as an effective supplement to *Capstone* follows:

1. Unit 1 which introduces *Capstone* corresponds with *Economics USA* "Resources and Scarcity: What Is Economics All About?" The notion of scarcity and unlimited wants forcing people to economize is the major theme of both. Teachers are urged to integrate with the *Capstone* materials as many of the supplemental teaching activities found in the film guide as needed to be assured all students have a grasp of the basic economic problem.

2. Unit 2 on Supply and Demand may be supplemented by three films from *Economics USA*. They include: "Markets and Prices: Do They Meet Our Needs?", "Demand and Supply: What Sets the Price?" and "Perfect Competition and Inelastic Demand: Can the Farmer Make a Profit?" We recommend that these materials be used as follows:

   Film #2: Introduction to *Capstone* Unit 2: Supply and Demand.

   Film #4: Summarize ideas presented in *Capstone* lessons 3, 4, and 5 in Unit 2.

   Film #5: Culminating Activity for *Capstone* Unit 2.

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3. Unit 3 on Consumers and Producers is reinforced by the *Economics USA* film entitled "The Firm: How Can It Keep Costs Down?" Because students often find it more difficult to understand the role of the producer than the role of consumer, we recommend that activities A,6 and B,1-4 from the *Economics USA* Teachers' Packet be integrated into the classroom instruction.

4. Unit 4 on the role of government can be enhanced by the film "Fiscal Policy: Can We Control the Economy?" Because this film is also useful in the macroeconomic units, teachers must determine in what area they wish to use this visual. Whether the film is used or not, the activities in the *Economics USA* Guide are most helpful for this section.

5. Unit 5 which introduces macroeconomics may be used with many *Economics USA* films and activities. Once again, this is a relatively new area of study for students, so many of the materials should be used to reinforce learning. Specifically, films numbered 6-13 and the related activities are appropriate for supplementing Unit 5.

6. Unit 6 of *Capstone* stresses forecasting changes in our economy. Films 6-8 and 11 and 12 will assist students in their understanding of the forecasting model variables and corresponding economic relationships. NOTE: The films recommended in this section have already been suggested for Unit 5 as well.

7. Unit 7 on international trade may be used with two *Economics USA* films and related activities. They are "International Trade: For Whose Benefit?" and "Exchange Rates: What in the World Is a Dollar Worth?" Students often have a difficult time understanding international economics. Consequently, we recommend a thorough integration of the films and related activities.

Ordering Information

Call 1-800-LEARNER
or
Write: Annenberg CPB Collection
P.O. Box 2345
South Burlington, VT 05407-2345

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Economics USA
Users' Grid for *Capstone*

Films and Lessons Found in Economics USA Resource Guide

Capstone Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Why Economics is Important	X														
2 Supply and Demand		X		X	X										
3 Consumers and Producers			X												
4 The Role of Government in Economics								X							
5 Macroeconomics						X	X	X	X	X	X	X	X		
6 Macroeconomics: Forecasting Our Economic Future						X	X	X			X	X			
7 International Economics Issues														X	X

Economics USA — A Resource Guide for Teachers, Gordon, Sanford, 1988, National Council on Economic Education.

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Return to Mocha
Extension Lessons for *Capstone* Units 2, 5, 7

Introduction

Economics Markets are mechanisms enabling buyers and sellers to exchange goods and services. When these exchanges are voluntary, both parties in the exchange are better off and economic wealth is created. Exchange creates wealth whether trade occurs between nations or between individuals.

In a free market setting, price is determined through the interaction of the buyers and sellers both making choices to satisfy their own self-interest. Price represents an important tool of the market. Although prices are used in a command type economy as well, they are not determined by the buyers and sellers. Instead they are set by individual planners or by a planning agency. Some economics use custom or tradition to allocate their scarce resources and these systems are called traditional.

Reasoning People want to make choices that will provide them with the greatest possible benefit. If an opportunity for greater benefit develops, rational decision makers will change their behavior in order to take advantage of it. New trading relationships can change the alternatives people have and consequently can change their behavior.

Concepts

Markets
Supply
Demand
Economic Systems
Economic Goals
Trade
Comparative Advantage
Exchange Rates

Instructional Objectives

Students will

1. Recognize that the purpose of an economic system is to allocate scarce resources among the wants of the population.
2. Recognize that voluntary trade creates economic wealth.
3. Identify the functions of market and price mechanism.

Lesson Description

The Return to Mocha material is designed to provide students with a mythical case study regarding the characteristics of the market economy in comparison with characteristics of other economic systems. In addition, the case presents the economic rationale for trade between societies.

Time Required

Two class periods

Materials

1. *The Return to Mocha* (film or video tape)
2. *The Return to Mocha Teacher Guide and Student Handouts*

Procedure

1. After the students have completed *Capstone* Unit 2, show the film *Return to Mocha*. Follow the "Teaching Suggestions" found in Activity 8 of the Teacher Guide. Highlight the market characteristics found in the Mochan economy as they relate to the previously learned material, i.e., prices, self-interest, consumer choice. Compare these characteristics with the command and traditional economies. Explain to the class that varying economic goals and different types of economic systems will be discussed further in Unit 5 of *Capstone*.

2. After the students have completed lesson one of Unit 5, refer to *The Return to Mocha*, show it again, or show it for the first time if procedure 1 above wasn't followed. Ask the students to look for the differences that exist between the Mochan, Caraway, and Oregano economies. Discuss the differences using the material found in Activity 9 of the Teacher's Guide.

3. *Return to Mocha* represents an excellent introduction to *Capstone* Unit 7. Show the film again, or show it for the first time if procedures 1 and 2 weren't followed. Using activities 10-12 in the Teacher's Guide, demonstrate how and why international trading relationships work.

4. Activity 13 in *The Return to Mocha Teacher's Guide* represents a summary of many of the concepts introduced in *Capstone*. This activity should be used as a review activity before a final evaluation is given.

Ordering Information

For information on free rental, write:
Modern Talking Pictures
5000 Park Street North
St. Petersburg, FL 33709

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Economics and the Stock Market Game Extension Lessons for *Capstone* Units 2-7

Introduction

Economics Most people are involved in markets as producers and consumers. They may not realize they also participate in markets as investors. Many people invest in corporations and never realize it because their savings are invested through pension plans, annuities, insurance companies and other groups to help finance corporate activities.

Corporations thrive because people choose to become part owners by buying common stock in the company. This is one means by which corporations acquire the financial base to begin or expand their operations. As stockholders, people monitor the company, vote on major decisions and receive dividends from their investments when the company is successful.

The financial markets provide many different types of investments. Similar to any market, financial markets bring together people with compatible interests so transactions can be made that will make both parties better off. It would be unfortunate if a person in Boston with money to invest and a person in Los Angeles with a good business idea but no capital do not have the opportunity to cooperate for mutual gain. Financial markets serve the purpose of bringing these people together.

Reasoning Financial markets provide alternatives for investors. They must choose carefully in order to gain wealth in a risky, uncertain environment. The ability to forecast world events, business conditions, and consumer tastes is critical to successful investment. Each of the six assumptions from the *Handy Dandy Guide* will help students to analyze behavior in the financial markets accurately.

Concepts

Choice
Investment
Supply and Demand
Business
Markets
Stocks
Corporation
Dividends
Profit
Price
Interest

Instructional Objectives

Students will

1. Recognize that financial markets exist to bring potential investors together with business managers and entrepreneurs.
2. Identify events that influence the supply, demand, and price of stocks.
3. Practice investments in the stock market.

Lesson Description

The Economics and the Stock Market material is designed to show how concepts and principles of economics help to describe and explain investment decisions. Students identify what variables influence the price of stocks and practice making investment decisions by "playing the market."

Time Required

Ten three-hour modules

Materials

Economics and the Stock Market Game (for the teacher)
Stock Market Game Player's Kit (for the teacher)
Investment forms (ten per student team)

Procedure

1. After the students have developed a basic understanding of supply, demand and price, begin to integrate the materials found in the *Economics and the Stock Market Game* instructional unit. This process should begin in Unit 2 of *Capstone* and may continue through Unit 7. We recommend that the financial market material become another "real life" example of the economic concepts, principles, and reasoning being taught in *Capstone*.

2. Explain to the students that after they have learned the basics of the market found in Unit 2 of *Capstone*, they will be given an imaginary sum of $100,000 to invest in the stock market. Their task will be to use their economic understanding and reasoning to make good choices in the stock market. Explain that over time they will gain more economic insight which will help them to make wise investment decisions.

3. Ask the students to keep accurate records regarding the choices they make in the market. In addition, they would write a paragraph each week using economic reasoning to explain their investment choices.

   NOTE: Although we recommend that *Economics and the Stock Market Game* be integrated into *Capstone*, the teacher may elect to use this material as a culminating activity. This is practical use of the material and presents an excellent opportunity to evaluate each student's economic knowledge and reasoning skill.

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LET US KNOW WHAT YOU THINK

The National Council invites your comments and suggestions for improvements to *Capstone*. What units or lessons were the most successful and why? Which ones were less effective and why? How would you improve *Capstone*?

Please send your suggestions to:

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